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List of Abbreviations used for the Names of Publications, Societies, and Public Bodies.

Abh. = Abhandlungen.
Abs. = Abstracts.
Acad. = Academy.
Actes = *also* Verh.
Afh. = Afhandlingar.
Allgem. = Allgemeine.
An. = Anales.
Ann. = Annals, Annuaire, Annual, etc.
Anthr. = Anthropologie, etc.
Anz. = Anzeiger.
Arch. = Archiv, Archives.
Archæol. = Archæologist, Archæology, etc.
Årssk. = Årsskrift.
Assoc. = Association.
Austral. = Australia, etc.
Balk. = Balkanique.
Beitr. = Beiträge.
Ber. = Bericht, Berichte.
Berg. = Bergwesen.
Bibl. = Biblical.
Biol. = Biological.
Biom. = Biometry.
Bol. = Boletin, Boletim.
Boll. = Bollettino.
Bot. = Botanical.
Bull. = Bulletin.
Centralbl. = Centralblatt.
Chem. = Chemical.
Coll. = Colliery, College.
Com. = Comitato, etc.
Comm. = Commissão, etc.
Conch. = Conchology, etc.
Congr. = Congress.
C.-R. = Comptes-rendus.
Denkschr. = Denkschriften.
Dir. = Direccão, etc.
Earthq. = Earthquake.
Engin. = Engineering, Engineers.
Erdk. = Erdkunde.
Erläut. = Erläuterungen.
F. C. = Field Club.
Festschr. = Festschrift.
Földt. = Földtani.
Foren. = Forening.
Förh. = Förhandlingar.
Geogn. = Geognostische.
Geogr. = Geographical.
Geol. = Geological, Geologist.
Gesch. = Geschichte.
Gesellsch. = Gesellschaft.
Handl. = Handlingar.
Helv. = Helvétique.
Hist. = History.
Hofmus. = Hofmuseum.
Hütt. = Hüttenwesen.
Idrogr. = Idrografico.
Indust. = Industrial.
Inst. = Institute, Institution.
Izv. = Izvestia.
Jaarb. = Jaarboek.
Jahrb. = Jahrbuch.
Jahresb. = Jahresbericht.
Jahresh. = Jahreshefte.
Journ. = Journal.
K. = Königlich, Kaiserlich, etc.
Közl. = Közlöny.
Landesanst. = Landesanstalt.
Landesd. = Landesdurchforschung.
Lefnadst. = Lefnadsteckningar.
Lingust. = Lingustica.
Linn. = Linnean, etc.
Lit. = Literary.
Mag. = Magazine.
Malacol. = Malacological, etc.
Mater. = Materialien, Matériaux.
Math. = Mathematisch, etc.
M. E. = Mining Engineers.
Med. = Medical, etc.
Meddel. = Meddelanden, Meddelelser.
Mem. = Memoirs, etc.
Metall. = Metallurgy.
Met. = Meteorological.
Mijnw. = Mijnwezen.

Min. = Mineralogy, Mining, etc.
Monogr. = Monographs.
Mus. = Museum, etc.
N. = Neues, New, etc.
Nac. = Nacional.
Nat. = National, Natural.
Naturf. = Naturforschend.
Naturgesch. = Naturgeschichte.
Naturh. = Naturhistorisch.
Naturw. = Naturwissenschaftlich.
Ned. O.I. = Nederlandsch Oost-Indië.
Notizbl. = Notizblatt.
Nouv. = Nouveau.
N.S. = Nova Scotia.
N.Z. = New Zealand.
Observ. = Observatoire, etc.
Öfvers. = Öfversigt.
Overs. = Oversigt.
Palæont. = Palæontographical, etc.
Phil. = Philosophical.
Philom. = Philomathique.
Photogr. = Photographic.
Phys. = Physical, etc.
Proc. = Proceedings.
Proc.-verb. = Procès-verbaux.
Progr. = Progress.
Publ. = Publications.
Q. = Quarterly.
R. = Royal, Real, Reale, etc.
Rec. = Records.
Reliq. = Reliquary.
Rendic. = Rendiconti.
Rep. = Report, etc.
Rev. = Revista, Revue.
Rozpr. = Rozprawy.
S. A. = South Africa.
Samml. = Sammlungen.
Sav. = Savant, etc.
Schr. = Schriften.
Schw. = Schweizer.
Sci. = Science, Scientific, etc.
Selsk. = Selskab.
Senckenb. = Senckenbergisch.
Serv. = Service, etc.
Sitz. = Sitzungsberichte.
Smiths. = Smithsonian.
Soc. = Society, etc.
Summ. = Summary.
Surv. = Survey.
Tosc. = Toscana.
Trans. = Transactions, etc.
Umiej. = Umiejetności.
Undersög. = Undersögelse.
Undersök. = Undersökning.
Univ. = University.
Ver. = Verein.
Verh. = Verhandlungen.
Vidensk. = Videnskabernes.
Wetterau. = Wetterauisch.
Zap. = Zapiski.
Zeitschr. = Zeitschrift.
Zool. = Zoology, etc.

EXAMPLES OF ABBREVIATIONS OF THE NAMES OF SOCIETIES AND PUBLIC BODIES.

Acad. Cæsarea Leopoldino-Carolina. Academia Cæsarea Leopoldino-Carolina Naturæ Curiosorum. Halle.
Acad. Stanislas. Académie de Stanislas. Nancy.
Akad. Umiej. Krakow. Akademii Umiejetności. Cracow.
Allgem. schw. Gesellsch. Naturw. Allgemeine schweizerische Gesellschaft für die gesammten Naturwissenschaften. Geneva, Zürich, &c.
Am. Acad. Arts & Sci. American Academy of Arts and Sciences. Boston (Mass.).
Am. Geol. American Geologist. Minneapolis (Minn.).
Am. Inst. M. E. American Institute of Mining Engineers. New York.
Am. Mus. Nat. Hist. N.Y. American Museum of Natural History. New York.
Am. Nat. American Naturalist. Boston (Mass.).
Analyst. Analyst (Society of Public Analysts). London.
Ann. Géogr. Paris. Annales de Géographie. Paris.
Ann. géol. Pénins. balk., Belgrade. Annales géologiques de la Peninsule balkanique. Belgrade.
Ann. idrogr. Rome. Annali idrografici. Rome.
Ann. Sci. nat. (Zool. & Palé.). Annales des Sciences naturelles: Zoologie et Paléontologie. Paris.
Arch. f. Anthr. & Geol. Schleswig-Holsteins. Archiv für Anthropologie und Geologie Schleswig-Holsteins und der benachbarten Gebiete. Kiel.
Arch. néerland. Sci. Archives des Sciences exactes et naturelles, publiées par la Société hollandaise des Sciences à Haarlem. La Haye.
Arch. Sci. phys. et nat. Genève. Archives des Sciences physiques et naturelles. Geneva.
Assoc. franç. Av. Sci. Association française pour l'Avancement des Sciences. Paris.
Austral. Inst. M. E. Australasian Institute of Mining Engineers. Melbourne (Vict.).

Austral. Mus. Australian Museum. Sydney (N.S.W.).

Badisch. geol. Landesanst. Grosherzoglich badische geologische Landesanstalt Heidelberg.

Beitr. Geophys. Leipzig. Beiträge zur Geophysik. Leipzig.

Beitr. Paläont. Oesterr.-Ung. Beiträge zur Paläontologie und Geologie Œsterreich-Ungarns und des Orients. Vienna.

Berg- hütt. Jahrb. Wien. Berg- und hüttenmännisches Jahrbuch der kaiserlich-königlichen Bergakademien zu Leoben und Přibram und der königlich-ungarischen Bergakademie zu Schemnitz. Vienna.

Berwicks. Nat. Club. Berwickshire Naturalists' Club. Alnwick.

Biol. Soc. Washington. Biological Society of Washington. Washington (D.C.).

Bristol Mus. Bristol Museum. Bristol.

Brit. Assoc. Waterworks Eng. British Association of Waterworks Engineers. London.

Canad. Rec. Sci. Canadian Record of Science. (Natural History Society of Montreal.) Montreal.

Carolina (N.) Geol. Surv., Econ. Papers. North Carolina Geological Survey. Economic Papers. Raleigh (N. Car.).

Carte géol. Suisse. Carte géologique de la Suisse. Berne.

Centralbl. f. Min. Centralblatt für Mineralogie, Geologie und Palæontologie. Stuttgart.

Chem. News. Chemical News. London.

Coll. Guard. Colliery Guardian. London.

Coll. Sci. Tokyo. College of Science, Imperial University. Tokyo.

Colo. Coll. Studies. Colorado College Studies. Colorado Springs (Colo.).

Com. geol. España. Comision del Mapa geológico de España. Madrid.

Com. géol. Russie. Comité géologique. St. Petersburg.

Comm. geogr. e geol. São Paulo. Commissão geographica e geologica de São Paulo. São Paulo (Brazil).

Comm. géol. Finlande. Commission géologique de Finlande. Helsingfors.

Congrès Soc. sav. Paris. Congrès des Sociétés savantes. Paris.

Connect. Acad. Connecticut Academy of Arts and Sciences. New Haven (Conn.).

Cotteswold Nat. F. C. Cotteswold Naturalists' Field Club. Gloucester.

Dan. geol. Undersög. Danmarks geologiske Undersögelse. Copenhagen.

Dansk geol. Fören. Dansk geologisk Förening. Copenhagen.

Dep. Geol. Indiana. Department of Geology and Natural Resources of Indiana. Indianopolis (Ind.).

Dep. Lands W. Austral. Department of Lands and Surveys. Perth (W. A.).

Dep. Mines N.S. Department of Mines of Nova Scotia. Halifax (N.S.).

Dep. Mines, N.S.W. Department of Mines, New South Wales. Sydney (N.S.W.).

Deutsch. geol. Gesellsch. Deutsche geologische Gesellschaft. Berlin.

Deutsch. u. österreich. Alpenver. Deutscher und österreichischer Alpenverein. Munich.

Deutsch. wissensch. Ver. Santiago. Deutscher wissenschaftlicher Verein zu Santiago. Valparaiso.

Devon. Assoc. Devonshire Association for the Advancement of Science, Literature, and Art. Plymouth.

Dir. Serv. geol. Portugal. Direccão dos Serviços geologicos de Portugal. Lisbon.

Earthq. Comm. Tokyo. Earthquake Investigation Committee. Tokyo.

Eclogæ Geol. Helv. Eclogæ Geologicæ Helvetiæ. Lausanne.

Essex Nat. Essex Naturalist. London.

Földt. Közl. Földtani Közlöny. [Geological Magazine.] Budapest.

Geogn. Jahresh., München. Geognostische Jahreshefte. Munich.

Geogr. Abh., Wien. Geographische Abhandlungen, Wien. Vienna.

Geogr. Anz. Geographischer Anzeiger. See *Peterm. Mitth.*

Geol. palæont. Abh. Jena. Geologische und palæontologische Abhandlungen. Jena.

Geol. Univ. Cal. Department of Geology, University of California. Berkeley (Cal.).

Gesellsch. f. Erdk., Berlin. Gesellschaft für Erdkunde. Berlin.

Ind. Acad. Sci. Indiana Academy of Science. Indianopolis (Ind.)

Ind. Eng. Indian Engineering. Calcutta.

Inst. Mines & Forests Brit. Guiana. Institution of Mines and Forests. Georgetown (Demerara).

Jaarb. Mijnw. Ned. O.-Ind. Jaarboek van het Mijnwezen in Nederlandsch Oost-Indië. Amsterdam.

Jahrb. f. Berg- u. Hüttenw. Sachsen. Jahrbuch für das Berg- und Hüttenwesen im Königreiche Sachsen. Freiberg.

Journ. Biom. Journal of Biometry. London.
Lunds Univ. Årssk. Lunds Universitets Årsskrift. Lund.
Malacol. Soc. Malacological Society. London.
Manch. Lit. Phil. Soc. Manchester Literary and Philosophical Society. Manchester.
Meddel. Grönland. Meddelelser om Grönland, udgivne af Commissionen for Ledelsen af de geologiske og geographiske Undersögelser i Grönland. Copenhagen.
Meddel. Indust. Finland. Meddelanden från Industristyrelsen i Finland. Helsingfors.
Min. petr. Mitth. Mineralogische und petrographische Mittheilungen. Vienna.
Naturw. Landesd. Böhmen. Naturwissenschaftliche Landesdurchforschung von Böhmen. Prague.
Oberrhein. geol. Ver. Oberrheinischer geologischer Verein. Stuttgart.
Peterm. Mitth. Petermann's Mittheilungen. Gotha.
Reliq. & Ill. Archæol. The Reliquary and Illustrated Archæologist. London.
Rev. Cienc., Lima. Revista de Ciencias. Lima.
Rev. crit. Paléozool. Revue critique de Paléozoologie. Paris.
Roy. Inst. G. B. Royal Institution of Great Britain.
Russ.-k. min. Gesellsch. Russisch-kaiserliche mineralogische Gesellschaft. St.Petersburg.
Sec. géol. Cab. S. M. St. Pétersb. Section géologique du Cabinet de Sa Majesté. St. Petersburg.
Senckenb. naturf. Gesellsch. Senckenbergische naturforschende Gesellschaft. Frankfurt-am-Main.
Soc. cient. 'Ant. Alzate.' Sociedad científica 'Antonio Alzate.' Mexico.
Soc. franç. Min. Société française de Minéralogie. Paris.
Soc. helv. Sci. nat. Société helvétique des Sciences naturelles. See *Allgem. schw. Gesellsch.*
Soc. philom. Verdun. Société philomathique de Verdun. Verdun.

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—— (S.).—Bastin, E. S.; Corstorphine, G. S.; Frech, F.; Gibson, W.; Heneage, E. F.; Herbertson, A. J.; Kalkovski, E.; Lacroix, A.; Launay, L. de; Mennell, F. P.; Rogers, A. W., &c.; Sabatini, V.; Skinner, B. M.; Stromer, E.
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—— (S.E.), Portuguese.—Kilian, W.; Macedo, J. de.
—— (S.W.), German.—Guerich, G.; Kalkovski, E.
—— (W.).—Bourdariat, A. J.; Cadell, H. M.; Fergusson, M.; Hamy, T. E.; Macedo, J. de; Meunier, St.; Pelatan, L.; Sawyer, A. R.; Solger, —; Vasseur, G.; Voit, F. W.
After-glows, Mt. Pelé.—Constable, F. C.
Aganides.—Frech, F.
Agaricocrinus.—Klem, M.; Rowley, R. R.
Agelacrinites.—Clarke, J. M.
Aggio, Cap d' (Alpes-Maritimes).—Bertrand, L.
Agglomerates, Fife.—Geikie, Sir A.
Agnesia.—Œhlert, D. P.
Agnostus.—Grœnwall, K. A.; Holm, G., &c.
Agoniatites.—Weller, S.
Agordino Valley (Venetia).—Billows, E.
Agraulos.—Grœnwall, K. A.

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* All fossil-names are those of genera which are figured, or occur in the titles of papers.

Agriochœrus.—Douglass, E.
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—— maps.—Kilroe, J. R.
Aigremont (Liége).—Doudou, E.
Aiguilles (Dauphiné).—Joukovski, E.
Ain (France).—Boistel, A.
Aisne (France).—Gosselet, J.; Leriche, M.; Mercey, N. de; Michel-Lévy, A., &c.; Rabelle, A.
Aix-la-Chapelle (Rh.-Prussia).—Jacob, —.
Ajaccio, Gulf of (Corsica).—Joleaud, A.
Ajjampur (Mysore).—Smeeth, W. F.
Ala Valley (Piedmont).—Novarese, V.
Alabama (U.S.A.).—Casey, T. L.; Rœsler, H.
Alagôas (Brazil).—Branner, J. C.
Alais (Languedoc).—Michel-Lévy, A., &c.
Alaria.—Loriol, P. de, &c; Quaas, A.; Schlosser, M.; Wanner, J.
Alaska (N. Am.).—Brooks, A. H., &c.; Mendenhill, W. C.; Palache, C.; Rohn, O.; Schrader, F. C., &c.
Albák (Hungary).—Pálfy, M. von.
Albania.—Cvijič, J.; Peucker, K.
Albany (N.Y.).—Ruedemann, R.
Alberta (Canada).—Bell, R., &c.; Lambe, L. M.
Albertite.—Bailey, L. W.; Duparc, L.; Poole, H. S.
Albertogaudrya.—Ameghino, F.
Albite.—Bowman, H. L.; Fromme, J.; Goodchild, J. G.
Albury (N.S.W.).—Slee, W. H. J.
Alces.—Newton, E. T.
Alcocer I.—Ramirez, E.
Alcyonaria, Tertiary.—Hall, T. S.
Alectryonia.—Hill, R. T.; Schlosser, M.
Alemtejo (Portugal).—Albuquerque d'Orey, F. de; Souza-Brandão, V. de.
Alethopteris.—Arcangeli, G.
Aleutite.—Lœwinson-Lessing, F.
Alexandria (Egypt).—Fourtau, R., &c.
Alexandrovsk (Ekaterinoslav).—Morozevich, I.
Alexia.—Callary, P.
Algæ, coal with.—Renault, B.
——, concretions &.—Clarke, J. M.
——, Devonian.—Potonié, H.
——, Jurassic.—Remeš, M.
——, lake-lime, &.—Wesenberg-Lund, C.
Algeria.—Blayac, J.; Brives, A.; Coignard, —, &c.; Ficheur, E.; Joleaud, A.; Pallary, P.; Pelatan, L.; Rœsler, H.
Algodonite.—Kœnig, G. A.
Algonkian, America.—Lawson, A. C.; Winchell, N. H.
Alicante (Spain).—Nicklès, R.
Alieur (Liége).—Questienne, P.
Allegheny R. (Penn.).—Williams, E. H., Jun.
Alleröd (Denmark).—Hartz, N., &c.
Alleynia.—Počta, P.
Allodesma.—Schuchert, C.
Allorisma.—Bittner, A.
Alluvial deposits, Australia (W.) gold.—Wells, R. N.
—— ——, Prussia (W.).—Jentzsch, A.
Alm Valley (Salzburg).—Crammer, H.
Alnites.—Deane, H.
Alnus.—Pampaloni, L.
Alp Quadrato (Grisons).—Bodmer-Beder, A.
Alpes-Maritimes (France).—Bertrand, L.; Franchi, S.; Guébhard, A.; Issel, A.; Michel-Lévy, A., &c.; Peron, P.; Verneau, R.
Alpine lakes, Glarus.—Blumer, S.
—— rivers.—Steinmann, G.
—— valleys, glaciers &.—Bonney, T. G.; Garwood, E. J.
Alps, Austrian.—Aigner, A.
——, Bernese.—Beltzer, A.; Sprecher, F. W.
——, Carnic.—Gortani, M.
——, Cottian.—Franchi, S.; Joukovski, E.; Martin, D.; Termier, P.
——, Dauphiné.—Kilian, W., &c.; Michel-Lévy, A., &c.; Termier, P.
——, Dinaric.—Anon., 37; Cvijič, J; Peucker, K.
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——, Glacial Period.—Penck, A., &c.
——, glacier-variations.—Finsterwalder, S.; Forel, F. A.; Kilian, W.; Rabot, C.
——, Graian.—Bonney, T. G.
——, Karawanka.—Ampferer, O.
——, Lepontine.—Garwood, E. J.; Tornquist, A.
——, limestone-barred valleys.—Kilian, W.
——, origin.—Kilian, W., &c.; Lapparent, A. de; Lugeon, M.
——, Pennine.—Bonney, T. G.; Dainelli, G.; Lugeon, M.; Taramelli, T.; Tornquist, A.
——, Pontine.—Garwood, E. J.
——, Rhætian.—Lorenz, T.; Rothpletz, A.
——, Savoy.—Kilian, W.; Michel-Lévy, A., &c.
——, Tyrol.—Ampferer, O.; Hammer, W.
——, Valais.—Jegerlehner, J.
——, Venetian.—Longhi, P.
Alsace-Lorraine.—Janensch, W.
Alstern, Lake (Svealand).—Dahl, C. G.
Altai (Siberia).—Kayser, E.; Lebedev, N.; Peetz, H. von.
Altenburg (Germany).—Kraft, —; Stoller, J.
Alticamelus.—Matthew, W. B.
Altona Bay (Vict.).—Thiele, E. O., &c.
Alum-industry, Campania.—Anon., 61.
—— shales, Sweden.—Holm, G., &c.
Aluminium, Chilian guano with.—Servat, F.
Alunite.—Hillebrand, W. F., &c.; Sigmund, A.
Alvania.—Brœgger, W. C., &c.
Alveolina-limestone, Egypt.—Chapman, F.

Alveolites.—Lebedev, N.; Počta, P.
Amathusia.—Ortmann, A. E.
Amauropsis.—Brœgger, W. C., &c.; Loriol, P. de, &c.
Amber, Burma.—Grundy, J.
Amberleya.—Loriol, P. de, &c.; Schlosser, M.
Ambites.—Frech, F.
Amblypristis.—Stromer, E.
Amblypygus.—Checchia, G.
Amblytatus.—Ameghino, F.
Ambocœlia.—Weller, S.; Wood, E.
Ambon I. (D. E. I.).—Bœhm, G.; Martin, K.
Ambronay (Ain).—Boistel, A.
Amelia, Mte. (Umbria).—Lotti, B.
America (Central).—Hudleston, W. H.
—— (North).—Carboniferous, &c. *See* Carboniferous, &c.
—— (—) Great Lakes. *See* Superior, Lake, &c.
—— (—). *See also* Alaska, Canada, U.S.A., &c.
—— (South).—Bergeat, A.; Torres, L. M.; Villareal, F.
—— (—). *See also* Argentina, Brazil, &c.
American Geologists' Association (1838).—Anon., 24.
—— geology, &c., 1892–1900.—Weeks, F. B.
—— Institute of Mining Engineers.—Frank, F. J.
—— Museum of Natural History (N.Y.). *See* Museums.
Amethyst. *See* Quartz.
Amia.—Priem, F.
Amiata, Mte. (Tuscany).—Spirek, V.
Ammodiscus.—Friedberg, W.; Grzybowski, J.; Schubert, R. J.
Ammofrondicularia.—Schubert, R. J.
Ammonites, Cretaceous.—Hill, R. T.; Hoyer, —; Krause, P. G.; Liebus, A., &c.; Petrascheck, W.; Ravn, J. P. J.; Sayn, G.; Sturm, F.
——, Devonian & Triassic.—Frech, F.
——, Jurassic.—Crick, G. C.; Fucini, A.; Haizmann, W.; Janensch, W.; Loriol, P. de; Sayn, G.
——, nomenclature.—Buckman, S. S.
Ammonites jurensis-beds.—Janensch, W.
——. *See also* Cephalopoda.
Amnigenia.—Clarke, J. M.
Amolanas (Chile).—Endter, A.
Ampasindava (Madagascar).—Lacroix, A.
Ampheristocrinus.—Weller, S.
Amphibia, age of.—Zittel, K. A. von.
——, Cretaceous.—Kornhuber, A.
——, Quaternary.—Buckman, S. S., &c.
——. *See also* Reptilia.
Amphibolite.—Emerson, B. K.; Piolti, G.; Viola, C.
Amphibolitic schists, Sweden.—Beck, R.
Amphicyon & *Amphicyonidæ.*—Schlosser, M.
Amphidolops.—Ameghino, F.
Amphiope.—Airaghi, C.; Loriol, P. de.
Amphistegina.—Chapman, F.; Newton, R. B., &c.
Amphora.—Pantocsek, J.
Amplexus.—Počta, P.
Ampyx.—Ruedemann, R.
Amsterdam (N.Y.).—Cumings, E. R.
Amur (Siberia).—Ivanov, M. M.; Yavorovski, P. K.
Amygdalus.—Engelhardt, H.
Analcite.—Card, G. W., &c.; Clarke, F. W., &c.; Ogilvie, I. H.; Steiger, G.; Zanolli, V.
Analyses, Austro-Hungarian minerals & ores.—Přiwoznik, E.
——, coal.—Anon., 28; Douglas, J.; Pollard, W.
——, French & Algerian minerals & ores.—Coignard, —, &c.
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Analysis, rock-.—Sollas, W. J.
Anapaite.—Gaubert, P.; Sachs, A.
Anapesus.—Airaghi, C.
Anarthocanna.—Nathorst, A.
Anatase.—Lacroix, A.; Robinson, H. H.; Thomas, H. H.
Anatina.—Quaas, A.; Sturm, F.
Ancilla.—Ravn, J. P. J.
Ancistroceras.—Holm, G., &c.
Ancistrodon.—Quaas, A.
Ancyloceras.—Hoyer, —.
Ancylorhynchus.—Wanner, J.
Ancylus.—Lœrenthay, E.
Andalucia (Spain).—Nicklès, R.
Andes (S. Am.).—Conway, Sir W. M.
Andesite, Ambon I.—Martin, K.
——, Asia Minor.—Leonhard, R.
——, Colorado.—Van Horn, F. R.
——, Devon.—Ussher, W. A. E.
——, Ecuador.—Reiss, W., &c.
——, Fife.—Geikie, Sir A.
——, Hungary.—Bœckh, H.
——, Madagascar & Martinique.—Lacroix, A.
——, New Zealand.—Dieseldorff, A.; Park, J.
——, Oregon.—Caulkins, F. C.
——, Styria.—Sigmund, A.
——, Washington (U.S.A.).—Landes, H.
——, Westmoreland.—Marr, J. E.
——. *See also* Igneous rocks.
Andesitic felspar.—Zalinski, E.
Andromeda.—Engelhardt, ; Hill, R. T. H.
Angara R. (Siberia).—Meister, A.
Anglesey (Wales).—Callaway, C.; Greenly, E.; Matley, C. A.
Angola (W. Africa).—Macedo, J. de; Voit, F. W.
Angora (Asia Minor).—Leonhard, R.
Angoulême (Charente).—Michel-Lévy, A., &c.
Angoumian.—Elbert, J.
Anhalt (N. Germany).—Van't Hoff, J. H., &c.
Anholt (Denmark).—Davis, P.
Animas R. (Colo.)—Lakes, A.

Anisocardia.—Choffat, P.
Anisocardium.—Loriol, P. de, &c.
Anisocycla.—Cossmann, M.
Anisonchus.—Douglass, E.
Anisorhizus & *Anisotemnus.* — Ameghino, F.
Ankerite.—Arsandaux, H.
Annaberg (Silesia).—Johnsen, A.; Volz, W.
Annelid-borings.—Rovereto, G.
Annelids, Silurian.—Peach, B. N.
Annularia.—Potonié, H.; Zeiller, R.
Anodonta.—Rehbinder, B.; Wesenberg-Lund, C.
Anodontophora.—Bittner, A.
Anomalocaris.—Woodward, H.
Anomia. — Brœgger, W. C.; Sturm, F.
Anomocare.—Grœnwall, K. A.
Anomosaurus.—Huene, F.
Anoplia.—Clarke, J. M.
Anoplophora.—Gortani, M.
Anorthosite.—Kemp, J. F.
Antalis.—Brœgger, W. C., &c.
Antarctic.—Andersson, J. G.; Nordenskjœld, O., &c.; Ortmann, A. E.
—— glaciation.—Andersson, J. G.; Holdich, Sir T. H.
—— oceanic deposits.—Arçtowski, H., &c.
—— rocks.—Macleod, W. A., &c.
Antedon.—Remeš, M.
Antelope. — Schlosser, M.; Seguenza, L.
Antentatus & *Anutætus.* — Ameghino, F.
Anthophyllite.—Friedel, G.
Anthracite, Namur.—Soreil, G.
——, Pennsylvania.—Lyman, B. S.
——, Queensland.—Dunstan, B.
Anthracomartus.—Pocock, R. I.
Anthracomycetes.—Renault, B.
Anthropodus.—Schlosser, M.
Antigua (W. I.).—Spencer, J. W. W.
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Antimony, Algeria.—Pelatan, L.
——, France.—Coignard, —, &c.
——, Hungary.—Mœsz, G.
——, New Caledonia.—Pelatan, L.
——, New South Wales. — McLachlan, D. C.
——, Tuscany.—Achiardi, G. d'; Angelis d'Ossat, G. de.
——, United States.—Landes, H., &c.; Pratt, J. H.
Antrim (Ireland). — Cole, G. A. J.; Fletcher, L.; Gray, W.; Milligan, W. H., &c.; Phillips, J. St. J.; Phipson, T. L.; Præger, R. L.; Welch, R. J.; Wright, J.
Antwerp (Belgium).—Abel, O.; Kemna, A.; Libert, J.; Mourlon, M.; Rutot, A.; Van den Broeck, E.; Van Ertborn, O.
Antwerp (N. Y.).—Crosby, W. O.
Aparchites.—Ruedemann, R.
Apateodus.—Woodward, A. S.
Apatite.—Bowman, C.; Brugnatelli, L.; Klein, C.; Turner, H. W.; Wolff, J. E., &c.
Apennines (Italy). — Issel, A.; Sacco, F.
Aphrodite.—Brœgger, W. C., &c.
Aplite.—Cole, G. A. J.; Ippen, J. A.; Reid, J. A.; Watson, T. L.; Weber, M.
Apophyllite.—Achiardi, G. d'; Zimanyi, K.
Aporoxylon.—Renault, B.
Aporrhais.—Brœgger, W. C., &c.; Ortmann, A. E.; Quaas, A.; Stanton, T. W.; Sturm, F.
Appalachian Mt. system (Pa.).—Geikie, J.; Weller, S.; Willis, B.
—— ——, Quebec.—Dresser, J. A.
Appalachian-St. Lawrence fault.—Ami, H. M.
Appmannsberg (Bavaria).—Œbbeke, K., &c.
Apricardia.—Dainelli, G.
Aprionodon.—Stromer, E.
Apsheron Penin. (Caspian).—Andrusov, N.
Aptian, Delagoa Bay.—Kilian, W.
——, Gard.—Pellat, E.
Aptychus.—Ravn, J. P. J.
Apulia (Italy).—Checchia, G.; Dainelli, G.
Aquitaine (France).—Douvillé, H.
Aquitainian Sea.—Fallot, E.
Arabia.—Stromer, E.
Arachnida, Carboniferous.—Pocock, R. I.; Thévenin, A.
Aragonite. — Buttgenbach, H.; Freyn, R.; Panebianco, G.; Warth, H.
Aramoho (N.Z.)—Stewart, J. T.
Aranyos Valley (Hungary).—Pálfy, M. von.
Araucarioxylon.—Clerici, E.
Araucarites.—Zeiller, R.
Arbacina. — Airaghi, C; Loriol, P. de.
Arbor Low (Derbyshire).—Garson, J. G., &c.
Arca.—Brœgger, W. C., &c.; Dainelli, G.; Loriol, P. de, &c.; Ortmann, A. E.; Quaas, A.; Ravn, J. P. J.; Toula, F.; Trentanove, G.; Wanner, J.; Wollemann, A.
Archæan, America (N.).—Lawson, A. C.; Willis, B.; Willmott, A. B.; Winchell, N. H.
——, Anglesey.—Callaway, C.
——, Britanny.—Kerforne, F.
——, Finland & Sweden. — Ramsay, W.
——, Ireland.—Kinahan, G. H.
——, Scotland.—Horne, J.
Archæocrinus.—Weller, S.
Archæocyathinæ.—Guerich, G.
Archæohyrax.—Ameghino, F.
Archæopteris.—Nathorst, A.
Archæutatus.—Ameghino, F.
Archelon.—Wieland, G. R.
Arcinella.—Brœgger, W. C., &c.

Arcose, —. *See* Lefebvre, A.
Arctic.—Bell, R.; Fries, T. M.; Nansen, F.; Nathorst, A. G.; Ramsay, W.; Schuchert, C.; Toll, E. von.
Arctocyon.—Gaudry, A.
Arctomys.—Kissling, E.
Arctosaurus.—Huene, F. von.
Ardèche (France).—Sayn, G., &c.
Ardennes.—Dormal, V.; Rabozée, H.; Rahir, E.; Reade, T. M., &c.
Arenig rocks, Caernarvonshire.—Matley, C. A.
Argentiferous galena, Peru.—Loredo, J. A.
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Argentina (S.A.).—Ameghino, F.; Bodenbender, G.; Burckhardt, C.; Roth, S.
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Argillœcia.—Chapman, F.
Argiope.—Simionescŭ, J.
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Argophyllites.—Deane, H.
Argyrodite.—Frenzel, A.
Argyrohippus & *Argyrolestes.*—Ameghino, F.
Arid regions, Western United States.—Johnson, W. D.
Ariège (France).—Caraven-Cachin, A.; Vasseur, G.
Ariegite.—Lacroix, A.; Lœwinson-Lessing, F.
Arietites.—Fucini, A.
Arius.—Leriche, M.; Priem, F.
Arizona (U.S.A.).—Blake, W. P.; Murphy, N. O.
Arkansas (U.S.A.).—Branner, J. C.; Hayes, C. W.; Hershey, O. H.; Keyes, C. R.; Purdue, A. H.; Taff, J. A.; Van Hise, C. R., &c.
Armeria.—Hartz, N.
Arminiheringia.—Ameghino, F.
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Arsinotherium.—Anon., 53; Beadnell, H. J. L.
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—— ——, Colorado, Kansas, & New Mexico.—Johnson, W. D.; Newell, F H.
—— ——, France.—Fallot, E.
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Artesian water, New Zealand.—Anon. 25; Page, S.; Stewart, J. T.
—— ——, Texas.—Hill, R. T.; Johnson, W. D.; Newell, F. H.
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Arthroon & *Arthropitus.*—Renault, B.
Arthur R. (Tasm.).—Waller, G. A.
Artinskian, Siberia.—Frech, F.
Artisia.—Kidston, R.
Aruba I. (W.I.).—Van Oort, E. D.
Arundel formation, Maryland.—Ries, H.
Asaphus.—Beecher, C. E.
Asbestos.—Bodmer-Beder, A.; Freyn, R.; Howley, J.; Kemp, J. F.; Pratt, J. H.; Tarnuzzer, C.
Asch (Belgian Limburg).—Van Ertborn, O.
Ash.—*See* Dust, volcanic, &c.
Ashanti (W. Africa).—Fergusson, M.
Asia, Central.—Hedin, Sv.; Krasser, F.; Veillet-Dufrèche, —.
——, Eastern.—Richthofen, F. von.
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Asmithwoodwardia.—Ameghino, F.
Aspen (Colo.).—Lakes, A.
Asphalt, Triest.—Schubert, R. J.
——, United States.—Parker, E. W.
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Aspidiaria.—Fischer, F.; Potonié, H.
Aspidiopsis.—Nathorst, A.; Potonié, H.
Aspidisca.—Renault, B.
Aspidites.—Frech, F.
Aspidoceras.—Sarasin, C., &c.
Aspidostoma.—Maplestone, C. M.; Ortmann, A. E.
Asplenites.—Roth, S., &c.
Assam (India).—Griesbach, C. L.; Montessus de Ballore, F. de; Oldham, R. D.
Assas (Hérault).—Rouville, P. G. de.
Assignon (Hérault).—Depéret, C.
Assiminea.—Pallary, P.
Assiniboia (Canada).—Bell, R., &c.
Asta, Cima d' (Tyrol).—Trener, G. B.
Astarte.—Brœgger, W. C., &c.; Choffat, P.; Loriol, P. de, &c.; Quaas, A.; Stanton, T. W.
Astegotherium.—Ameghino, F.
Asterocalamites & *Asterophyllites.*—Potonié, H.; Zeiller, R.
Asteroceras.—Fucini, A.
Asteroconites-limestone.—Mojsisovics, E. von.
Asteroidea, Jurassic.—Remeš, M.
Asteromys.—Ameghino, F.
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Asthenoma.—Cossmann, M.
Astian.—Audenino, L.
Astrakhan (Russia).—Andrusov, N.; Nehring, A.; Rehbinder, B.

Astrapothericulus.—Ameghino, F.
Astrorhiza.—Chapman, F.; Schubert, R. J.
Atacamite.—Moses, A. J.
Atasari (Finland).—Hammarstrœm, R.
Athabasca (Canada).—Bell, R.
Atherstonia.—Woodward, A. S.
Athrodon.—Sauvage, H. E.
Athyris.—Drevermann, F.; Macmahon, C. A., &c.; Weller, S.
Atlantic basin (N.).—Cole, G. A. J.
——, submerged valleys.—Hull, E.
——, Tertiary land.—Scharff, R. F.
——. *See also* Rockall, &c.
'Atlantis.'—Scharff, R. F.; Willis, B.
Atlin (B.C.).—Gwillim, J. C.; Prior, E. G.; Robertson, W. F.; Watson, R. L.
Atmosphere, geology and.—Stevenson, J.
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Atollites.—Maas, O.
Atolls. *See* Coral-reefs, &c.
Atractites.—Mojsisovics, E. von.
Atrypa.—Macmahon, C. A., &c.
Aturia.—Dainelli, G.
Atvidaberg (Gotland).—Strandmark, J. E.
Atys.—Brœgger, W. C., &c.
Aubrac Mts. (Auvergne).—Boule, M.
Auckland (N.Z.).—Fox, C. E.; Mulgan, E. K.
Aude (France). — Grossouvre, A. de; Michel-Lévy, A., &c.
Augite-basalt.—Becker, G.; Schwantke, A.
—— -chloromelanite.—Franchi, S.
—— -syenite.—Cushing, H. P.
Aulacoceras.—Mojsisovics, E. von.
Aulopus.—Woodward, A. S.
Auriculina.—Brœgger, W. C., &c.
Auriferous conglomerate. *See* Gold, &c.
—— gravels, Australia (W.).—Wells, R. N.
—— ——, California.—Hershey, O. H.
—— reefs, Victoria.—Jenkins, H. C.
Aussee (Styria).—Aigner, A.
Austen (Texas).—Hill, R. T.
Australia, artesian water. — Anon., 25; Cox, W. G.; Jack, R. L.
——, *Glossopteris*-flora.—Arber, E. A. N.
——, land-oscillations.—Andrews, E. C.; Thomson, W. C.
——. *See also* Coal, Gold, N.S.W., &c.
—— (S.).—Basedow, H.; Brown, H. Y. L.; Gœczel, S.; Hall, T. S., &c.; Hancock, H. L.; Mennell, F. P.
—— (S.), northern. — O'Loughlin, L., &c.
—— (W.).—Howell, A.; King, H. S.; Lidgey, E.; Macdonald, A.; Maitland, A. G.; Moss, F.; Simpson, E. S.; Smith, H. V.; Venn, H. W.
Austria (Lower).—Rzehak, A.; Toula F.
—— (Upper).—Aigner, A.; Graber, H. V.; Handmann, R.
Austria-Hungary.—Anon., 23, 37; Rosiwal, A.
——, Geological Institute. *See* Geological Surveys.
——, Government Assay-Office. — Přiwoznik, E.
——, Petrographical Institutes.—Morozevich, I.
——. *See also* Bohemia, Earthquakes, Hungary, Tyrol, &c.
Austwick (Yorks.).—Hughes, T. McK.
Autignac (Hérault).—Depéret, C.
Autodetus.—Clarke, J. M.
Auvergne (France).—Boule, M.; Brunhes, B., &c.; Cullis, C. G., &c.
——. *See also* Puy-de-Dôme, &c.
Avebury (Wilts).—Harrison, W. J.
Avellana.—Choffat, P.; Quaas, A.
Aves. *See* Birds.
Aveyron (France).—Arsandaux, H.
Avicula.—Andrusov, N.; Bittner, A.; Drevermann, F.; Gortani, M.; Loriol, P. de, &c.; Maurer, F.; Nœtling, F.; Ravn, J. P. J.; Stanton, T. W.; Strahan, A., &c.; Sturm, F.
Aviculopecten. — Bittner, A.; Weller, S.
Avon Gorge (Gloucester).—Morgan, C. L.
Avon R. (Hants).—Reid, C.
Axholme, I. of (Lincoln).—Gibson, W.
Axillare.—Remeš, M.
Axinus.—Brœgger, W. C., &c.; Quaas, A.; Wanner, J.
Axis. *See* Crystals, Earth, &c.
Axminster (Devon).—Woodward, H. B.
Aylestone (Leicester). — Rœchling, H. A.
Ayot (Herts).—Salter, A. E.
Ayrshire (Scotland). — Dron, R. W.; Geikie, J., &c.; Smith, J.
Azores.—Scharff, R. F.
Azov, Sea of.—Vernadski, V. S., &c.
Azygograptus.—Elles, G. L., &c.

Babolna (Hungary).—Horusitzki, H.
Bachitherium.—Schlosser, M.
Bacillus.—Renault, B.
Bacon, F. (Lord Verulam). — Hunt, A. R.
Bacteria in coal.—Renault, B.
Bacubirito, the Mexican meteorite. — Ward, H. A.
Baculites. — Liebus, A.; Quaas, A.; Sturm, F.
Baden (Aargau).—Muehlberg, F.
—— (Germany).—Meyer, E.; Ries, O. M.; Rosenbusch, H.; Sauer, A.; Schalch, F.; Steinmann, G.; Thuerach, H.
Baëna.—Lambe, L. M.
Baffin Land (Canada).—Bell, R., &c.; Schuchert, C.
Baglivia.—Lœrenthay, E.
Bagshot Sands, Dorset.—Thomas, H. H.; Woodward, H. B.
—— ——, Hants.—Reid, C.
Bahia (Brazil).—Woodward, A. S.

Bairdia.—Chapman, F.
Bakal (Orenburg).—Koniushevski, L.; Kovalev, P.; Krasnopolski, A.
Bakeu (Rumania).—Mrazec, L., &c.
Bakewellia.—Frech, F.
Bakony Forest (Hungary).—Bittner, A.; Schafarzik, F.
Baku (S. Russia).—Andrusov, N.; Bogdanovich, K.
Bala Beds, Yorkshire.—Hughes, T. McK.
Bala Lake (N. Wales).—Lake, P.; Strahan, A.
Balanocrinus.—Remeš, M.
Balanus.—Ortmann, A. E.
Balearic Is.—Lozano, R. S.
Balephetrish (Tiree I.).—Coomáraswámy, A. K.
Balkan Peninsula.—Anon., 65; Cvijič, J.; Peucker, K.
——. *See also* Alps, Dinaric; Bosnia, &c.
Baltic, Chalk.—Hennig, A.
——, Drift.—Holst, N. O.; Schmidt, F.
——, land elevation, &c.—Bonsdorff, A.
——. *See also* Pomerania, &c.
Baluchistan (India).—Griesbach, C. L.
Balve (Westphalia).—Denckmann, A.; Kaiser, E.
Bambouk (Senegambia).—Bourdariat, A. J.; Meunier, St.
Banda I. (D.E.I.).—Verbeek, R. D. M.
Banff (Scotland).—Hinxman, L. W., &c.
Bánhida (Hungary).—Litschauer, L.
Banka (D.W.I.).—Jongh, D. de, Jun.
Baoussé-Roussé (Alpes-Maritimes).—Verneau, R.
Barama & Barima Rivers (Brit. Guiana).—Harrison, J. B.
Barbados (W.I.).—Flett, J. S.; Harrison, J. B., &c.; Horusitzki, H.; Jukes-Browne, A. J.; Morris, D.; Spencer, J. W. W.; Teall, J. J. H.
Barcelona (Spain).—Lambert, J.
Barga (Tuscany).—Ugolini, R.
Barkhamstead (Conn.).—Emerson, B. K.
Barmundoo (Queensl.).—Dunstan, B.
Barn Bluff (Tasm.).—Waller, G. A.
Barnstaple (Devon).—Coomáraswámy, E. M.; Woodward, H.
Barre (Vt.).—Finlay, G. I.
Barremian, Languedoc.—Sayn, G., &c.
Barris, W. H. *See* Preston, C. H.
Barroubio (Hérault).—Depéret, C.
Bartholomew Co. (Ind.).—Edwards, J. J.
Barton Clay, Hants.—Reid, C.
Bartonian, Corsica.—Joleaud, A.
Barytes.—Borgstrœm, L. H.; Delkeskamp, R.; Johnsen, A.; Mœsz, G.; Muller, —.; Parker, E. W.; Samoilov, J.; Sommerfeldt, E.
Barytherium.—Ameghino, F.
Basalt, Antarctic.—Macleod, W. A., &c.
——, Antrim.—Gray, W.; Phillips, J. St. J.
Basalt, Asia Minor.—Leonhard, R.
——, Bavaria.—Sœllner, J.
——, Bohemia.—Becker, G.; John, C. von.
——, Devon.—Ussher, W. A. E.
——, Durham, &c.—Anon., 67.
——, Ecuador.—Reiss, W., &c.
——, Fife.—Geikie, Sir A.
——, Hesse.—Trenzer, C.
——, Kilimanjaro.—Becker, G.
——, Madagascar.—Lacroix, A.
——, Mexico.—Krustchov, K. von.
——, Moabite-Stone.—Bonney, T. G.
——, New South Wales.—Card, G. W.
——, New Zealand.—Dieseldorff, A.; Mulgan, E. K.
——, Oregon.—Calkins, F. C.
——, Queensland, &c.—Andrews, E. C.
——, Rhenish Prussia.—Henrich, F.
——, Sardinia.—Dannenberg, A.
——, Scania.—Hennig, A
——, Styria.—Dreger, J.
——, Tasmania.—Petterd, W. F.
——, Washington (U.S.A.).—Landes, H.
——. *See also* Analcite, Nepheline, &c.
Basaltic tuff, sandstone-pillar in.—Eck, H.
Bas-Bugey basin (Ain).—Boistel, A.
Basel (Switzerland).—Buxtorf, G.; Huene, F. von; Newton, R. B.; Sarasin, F.; Struebin, K.
Basilicata (Italy).—Crema, C.
Baskunchak (Astrakhan).—Rehbinder, B.
Bate's Hole (Wy.).—Knight, W. C.
Bathgate (Linlithgow).—Anon., 30.
Bath-Stone.—David, W.; Morgan, C. L.
Bathygenys.—Douglass, E.
Bathy-geology.—Mackinder, H. J.
Bathysiphon.—Schubert, R. J.
Bathytoma.—Cossmann, M.
Bathyuriscus.—Woodward, H.
Batrachia. *See* Reptilia.
Bäuchlen (Bern).—Kissling, E.
Baulmes (Vaud).—Rittener, T.
Baumhauerite.—Gaubert, P.; Solly, R. H.
Bauxite.—Aichino, G.; Hayes, C. W.; Pratt, J. H.
Bavaria.—Ammon, L. von; Angermann, E.; Blanckenhorn, M.; Knebel, W. von; Koken, E.; Liebus, A.; Maas, O.; Œbbeke, K., &c.; Penck, A., &c.; Pompeckj, J. F.; Reis, O. M.; Rœsler, H.; Schlosser, M.; Sœllner, J.; Weithofer, K. A.
Bavenite.—Gaubert, P.
Bayania & *Bela.*—Cossmann, M.
Bayonne (France).—Chudeau, R.
Beaches. *See* Raised Beaches, &c.
Beaconsfield (Tasm.).—Twelvetrees, W. H.
Bean-Blossom Valley (Ind.).—Marsters, V. F.
Bear I. (Arctic).—Fries, T. M.; Nansen, F.; Nathorst, A. G.
—— (Siberia).—Toll, E. von.

Beaumont-Leys Estate (Leicester).—Browne, M.
Beauvais (Oise).—Thiot, —.
Beauval (Somme).—Gosselet, J.
Beaver, Thames Valley.—Newton, E. T.
Bechuanaland (S. Africa).—Kalkovski, E.
Becraft Mt. (N.Y.).—Clarke, J. M.
Bédarieux (Hérault).—Collot, —; Michel-Lévy, A., &c.; Nicklès, R.
Bedruthan (Cornwall).—Fox, H.
Beemerville (N. J.).—Wolff, J. E.
Beemery (N.S.W.).—Pittman, E. F.
Beja (Prov. Alemtejo).—Werneke, —.
Bélávar (Hungary).—Telegd, L. R. von.
Belemnites.—Jækel, O.; Janensch, W.; Pompeckj, J. F.; Remeš, M.
Belemnites brunsvicensis-clay.—Kloos, J.
Belemnoteuthidæ (n. fam.).—Gortani, M.
Belemnoteuthis.—Angermann, E.; Crick, G. C.
Belfast (Antrim).—Cole, G. A. J.; Phillips, J. St. J; Præger, R. L.
'Belgica,' Antarctic voyage of the.—Arçtowski, H.
Belgian Coalfields. *See* Coalfields.
Belgium, coast-deposits.—Andrimont, R. d'.
——, Crag.—Harmer, F. W.
——, geological $\frac{1}{40,000}$ map.—Mourlon, M.
——. *See also* Brabant, Liége, Soils, &c.
Bell Mount (Tasmania).—Waller, G. A.
Bella.—Brœgger, W. C., &c.
Belledonne massif (Dauphiné).—Lory, P.
Bellelay (Bern).—Rollier, L.
Bellerophon.—Drevermann, F.; Weller, S.
Bello Horisonte (Minas Geraes).—Scott, H. K.
Belluno (Venetia).—Dal Piaz, G.
Belly-River Series, N.W. Canada.—Lambe, L. M.
Belmez (Cordova).—Mallada, L.
Beloceras.—Frech, F.
Belodon.—Huene, F. von.
Beloptera.—Crick, G. C.
Belp Mts. (Bern).—Kissling, E.
Belugite.—Lœwinson-Lessing, F.
Benaco, L. *See* Garda, L.
Bengal (India).—Leather, J. W.
Bennie, J. *See* Goodchild, J. G.
Berg, F. G. C. *See* Gallardo, A.
Bergen (Norway).—Reusch, H.
Bergeria.—Potonié, H.
Berkeley Hills (Cal.).—Lawson, A. C.
Berkshire.—Blake, J. H., &c.; Jones, T. R., &c.; Monckton, H. W.; Shrubsole, O. A., &c.; White, H. J. O.
Berlin (Brandenburg).—Gagel, C.
Bern (Switzerland).—Antenen, F.; Kissling, E.; Loriol, P. de, &c.; Rollier, L.; Schardt, H.
Bernissart (Hainault).—Cornet, J., &c., De Pauw, L.; Van den Broeck, E.
Bernissartian.—Bommer, C.
Berry Wood (Northants).—Thompson, B.
Berycopsis.—Woodward, A. S.
Beryl.—Bowman, H. L.; Brugnatelli, L.; Neuwirth, V.
Betula.—Conwentz, H.; Engelhardt, H.; Hartz, N.
Beyrich, E. *See* Koken, E.
Beyrichia.—Clarke, J. M.; Grœnwall, K. A.; Holm, G., &c.
Beyrichona.—Jones, T. R.; Matthew, G. F.
Bhamo (Burma).—Jack, R. L.
Biarritz & Bidart (Basses-Pyrénées).—Bertrand, L.
Bibliographia geologica.—Mourlon, M.
Bidassoa R. (Basses-Pyrénées).—Dallemagne, H.
Biella (Grisons).—Franchi, S.
Bielschowitz (Silesia).—Michael, R.
Bifarina.—Chapman, F.
Bigenerina.—Grzybowski, J.
Bighorn Mts. (Wy.).—Matthes, F. E.
Bikaneer (Indian Desert).—Clarke, R. W.
Biloculina.—Reade, T. M., &c.
Bingera (N.S.W.).—Card, G. W.
Binney Collection.—Arber, E. A. N.
Biotite-gneiss.—Beck, R.; Kœnigsberger, J.
——-granite.—Reinisch, R.
Birmingham Waterworks.—Cantrill, T. C.
Bituminous shale, New York Devonian.—Clarke, J. M.
Biradiolites.—Choffat, P.; Dainelli, G.
Birds, fossil.—Hay, O. P.; Zittel, K. A. von.
Bisersk & Blagodat (Urals).—St. Rainer, L.
Bison.—Anon., 54; Capitan, L., &c.; Koken, E.; Rivière, E.; Schafarzik, F.; Williston, S. W.
Bithyna.—Pallary, P.
Bittium.—Brœgger, W. C., &c.
Bittner, A. *See* Anon., 2.
Bitumen, Cuba.—Vaughan, F. W.
——. *See also* Asphalt, &c.
Blackdown (Mendips).—Richardson, L.
Black Hills (Dakota).—Darton, N. H.; Hovey, E. O; Jaggar, T. A., Jun.
Blackpool (Lancs).—Dickinson, J.
Black Sea. *See* Crimea, &c.
Blake, J. H. *See* Woodward, H. B.
Blanc, Mt. (Savoy).—Coolidge, W. A. B.
Blanzy (Saône-et-Loire).—Dobers, —, &c.
Bleiberg Valley (Carinthia).—Geyer, G.
Blende.—Buttgenbach, H.; Canaval, R.
Blue Krantz R. (Cape Colony).—Schwarz, E. H. L.
Blythe R. (Tasm.).—Twelvetrees, W. H.
Bocq (Liége).—Destinez, P.
Bodensee. *See* Constance, Lake.
Bodö (Norway).—Holmquist, P. J.

Boghead Coal.—Renault, B.
Bogs. *See* Peat, &c.
Bohemia.—Becker, G.; Heurverges, R.; Hibsch, J. E.; Hinterlechner, K.; John, C. von; Krusch, P.; Liebus, A.; Muehlhausen, A.; Petrascheck, W.; Počta, P.; Procházka, V. J.; Purkyně, C. von; Redlich, K. A.; Rœsler, H.; Schubert, R. J., &c.; Slavik, F.; Suess, F. E.; Weithofer, K. A.; Woldřich, J., Jun.; Želizko, J. V.
Böhmerwald (Bohemia, &c.).—Woldřich, J., Jun.
Bokhara (Turkestan).—Krafft, A. von.
Bokkeveld Beds.—Gibson, W.; Schwarz, E. H. L.
Bolbopites.—Ruedemann, R.
Bolca, Monte (Venetia).—Omboni, G.
Bolderian.—Abel, O.; Van Ertborn, O.
Bolivia (S. Am.).—Spencer, L. J.
Bolivina.—Liebus, A.; Schubert, R. J.
Bollia.—Ruedemann, R.
Boma (E. Africa).—Wolff, W.
Bonaria (Sardinia).—Lovisato, D.
Bone-beds, Pikermi, &c.—Woodward, A. S.
Bone-Cabin Quarry (Wy.).—Granger, W., &c.
Bone-fissures, Bavaria.—Schlosser, M.
Bonifacio, Straits of (Corsica).—Ferton, C.
Bonin Is. (Pacific).—Yoshiwara, S.
Bonn (Rh.-Prussia).—Lorié, J.
Bonneville, Lake (Nevada, &c.)—Talmage, J. E.
Boracite, Turkey.—Anon., 65.
Borates, plant-remains, &c.—Raeymaeker, D.
Borax, distribution of.—Hoskold, C. A. L.; Vernadski, V. S., &c.
Bordeaux (Gironde).—Fallot, E.
Bored echinoderm-spines, Chalk.—Grœnwall, K. A.
Boreochiton.—Brœgger, W. C., &c.
Boreodon.—Lambe, L. M.
Borings, &c., annelids, &c.—Rovereto, G.
——, Australia (W.).—Maitland, A. G.
——, Bavaria.—Leppla, A.; Reis, O. M.
——, Belgium.—Cornet, J.; Habets, P.; Lohest, M.; Mourlon, M.; Van Ertborn, O.
——, Brunswick & Hanover.—Kloos, J.
——, Cape Colony.—Ritso, B. W.
——, Denmark.—Harder, P.
——, France.—Fallot, E.; Mieg, M.; Ramond, G., &c.; Videlaine, —.
——, Hants.—Reid, C.
——, Italy.—Angelis d'Ossat, G. de; Toldo, G.
——, Kent & Suffolk.—Whitaker, W.
——, Lincolnshire.—Anon., 69; Griffith, P.; Preston, H.
——, Lyme Regis.—Jukes-Browne, A. J.
——, Man, I. of.—Dawkins, W. B.
——, Natal, &c.—Gray, C. J.
——, Northants.—Thompson, B.
Borings, Prussia.—Klautzsch, A.; Middelschulte, A.; Wahnschaffe, F.
——, Russia.—Golubiatnikov, D. V.; Vosnessenski, V.
——, Saxony.—Dalmer, K.
——, Senegambia.—Vasseur, G.
——, Spain.—Coello, C.; English, G.
——, Texas.—Hill, R. T.
——, water-supply &.—Janet, L.
——. *See also* Artesian wells, &c.
Borneo.—Krause, P. G.; Liebenam, W.; Martin, K., &c.; Schmidt, C.; Vogel, F.
BORNHARDT, W. *See* Schenck, A.
Bornholm I. (Baltic).—Grœnwall, K. A.; Ussing, N. V.
Borregaard (Scania).—Grœnwall, K. A.
Borsonia.—Ortmann, A. E.; Wanner, J.
Bos.—Lydekker, R.; McConnell, P.; Schlosser, M.
Bosnia.—Engelhardt, H.; Katzer, F.; Peucker, K.
——. *See also* Alps, Dinaric, &c.
Bosnia, Gulf of.—Holst, N. O.
Bosoród (Hungary).—Halaváts, J.
Boston (Mass.).—Brown, R. M.
Boston Mts. (Ark.).—Hershey, O. H.; Purdue, A. H.
Bostonite, Madagascar.—Lacroix, A.
Bothrodendron.—Kidston, R.; Nathorst, A.; Potonié, H.
Bothus.—Munthe, H.
Botriopygus.—Loriol, P. de.
Botryocrinus.—Weller, S.
Bouchardia.—Ortmann, A. E.
Boulder-Clay, Cork.—Reade, T. M.; Wright, J.
——, East Anglia.—Harmer, F. W.; Hill, E.
——, Scotland.—Geikie, Sir A.; Hinxman, L. W., &c.
Boulder Hot-Springs (Mont.).—Weed, W. H.
Boulders, Denmark.—Madsen, V.; Ravn, J. P. J.
——, Durham, &c.—Dwerryhouse, A. R.
——, Indiana.—Macbeth, W. A.
——, Switzerland.—Antenen, F.; Œberhardt, B.; Schardt, H.
——, Yorkshire.—Stather, J. W.
——. *See also* Glacial deposits and Erratic.
Boulonnais (France).—Leriche, M.; Munier-Chalmas, —; Sauvage, H. E.; Schlœsing, T.
Bourgueticrinus.—Quaas, A.
Bourke (N.S.W.).—Pittman, E. F.
Bouryia.—Cossmann, M.
Bovey R. (Devon).—Lowe, H. J.
Box-stones, Diestian &.—Van den Broeck, E.
Boylagh (Donegal).—Cole, G. A. J.
Brabant (Belgium).—Rutot, A.; Stainier, X.; Van den Broeck, E.
Brachiopoda, Cambrian.—Etheridge, R. Jun.; Groom, T. T., &c.

Brachiopoda, Carboniferous. — Beede, J. W.; Destinez, P.; Dun, W. S.; Rowley, R. R.; Weller, S.
——, Cretaceous.—Broili, F.; Hill, R. T.; Quaas, A.; Sturm, F.; Wanner, J.
——, Devonian.—Clarke, J. M.; Drevermann, F.; Macmahon, C. A., &c.; &c.; Martelli, A.; Œhlert, D. P.; Wood, E.
——, Jurassic.—Bell, R.; Loriol, P. de; Remeš, M.; Roth, S.
——, muscular attachments. — Huene, F.
——, Quaternary.—Brœgger, W. C., &c.
——, Silurian.—Cumings, E. R., &c.; Holm, G., &c.; Peach, B. N.; Ruedemann, R.; Schuchert, C.
——, Tertiary.—Bœttger, O.; Cossmann, M.; Dainelli, G.; Ortmann, A. E.
——, Triassic.—Mariani, E.
Brachycyathus.—Wanner, J.
Brachyphyllum.—Hill, R. T.
Brachyprion.—Clarke, J. M.
Brachypyge.—Pocock, R. I.
Bracklesham Beds, Hants.—Reid, C.
Bradoria & *Bradorona.*—Jones, T. R.; Matthew, G. F.
Brand Beds.—Rœchling, H. A.
Brandenburg (Prussia).—Keilhack, K.; Korn, J.; Passarge, S.; Tietze, O.; Wahnschaffe, F.
Brandes-en-Oisans (Dauphiné).—Muller, —.
Brassac (Tarn).—Arsandaux, H.
Braunsdorf (Saxony).—Mammen, F.
Bray, Pays de (France).—Mercey, N. de.
Braysdown Colliery (Somerset).—Steart, F. A.
Brazil.—Anon., 50; Berg, G.; Branner, J. C.; Derby, O. A.; Frech, F.; Huber, J.; Kemp, J. F.; Rœsler, H.; Scott, H. K.; Woodward, A. S.
Breccias, England, Ireland, Thuringia, &c.—Bonney, T. G.
——, New South Wales, volcanic.—Card, G. W.; Pittman, E. F.
——, Sutherland.—Blake, J. F.
Brecknockshire (Wales).—Rutley, F.; Wright, W. D.
Bredasdorp & Breede R. (Cape Colony).—Rogers, A. W., &c.
Bredon Hill (Worcester).—Richardson, L.
Brescia (Lombardy).—Anon., 22; Baldacci, L., &c.; Cacciamali, G. B.; Cermenati, M.; Clerici, E.; Paroni, C. F.
Bresse, Pays de (Ain).—Boistel, A.
Brest (Britanny).—Barrois, C.
Breton, Cape (Canada).—Jones, T. R.; Matthew, G. F.
Briançonnais (France). — Michel-Lévy, A., &c.; Termier, P.
Bribir (Croatia).—Stefani, C.
Brick-earth, Auvergne volcanic.—Brunhes, B., &c.
——, Denmark.—Hartz. N., &c.
——, Kansas.—Crane, W. R.
Bridestones (Lockton Moor).—Stather, J. W.
Briggsville (Mass.).—Cleland, H. F.
Brighton (Sussex).—Macpherson, W.
Brindleton (N. Car.).—Robinson, H. H.
Brington (Northants).—Thompson, B.
Brissoides.—Lambert, J.
Brissopsis.—Airaghi, C.; Checchia, G.; Lambert, J.; Loriol, P. de; Toula, F.
Bristol.—Baker, B. A.; Callaway, C.; Morgan, C. L.
Britanny (France).—Barrois, C.; Davis, W. M.; Kerforne, F.; Lebesconte, P.
British Association, Belfast.—Anon., 43, 44, 45, 46; Macmahon, C. A.; Præger, R. Ll., &c.
—— coals, earthquakes. *See* Coals, Earthquakes.
British Columbia.—Anon., 70; Bell, R., &c.; Bonney, T. G.; Gwillim, J. C.; Kemp, J. F.; Prior, E. G.; Robertson, W. F.; Watson, R. L.; Woodward, H.
British Guiana. — Gray, F. J.; Hargreaves, T. S., &c.; Harrison, J. B.; Rœsler, H.
British Islands.—Mackinder, H. J.
—— ——. *See also* England, Erratic, Somerset, &c.
—— Museum. *See* Museums.
Broad Arrow (W. Austral.).—King, H. S., &c.
Brockham (Surrey).—Stebbing, W. P. D.
'Brockrams.'—Bonney, T. G.; Dawkins, W. B.; Kendall, P. F.
Brödtorp (Finland).—Rosberg, J. E.
Broken Hill (N.S.W.).—Maclachlan, D. C.; Spencer, L. J.
Bronsil Shales.—Groom, T. T., &c.
Bronteus.—Ruedemann, R.
Brookite.—Pfeil, K.; Robinson, H. H.; Thomas, H. H.
Brosso (Piedmont).—Novarese, V.
Brown coal.—Bohemia, —; Hibsch, J. E.; Přiwoznik, E.; Redlich, K. A.
——, Elbe.—Meunier, F.
——, Hesse.—Wittich, E.
——, Hungary.—Litschauer, L.
——, Posen.—Krug, —.
——. *See also* Lignite.
Bruges (Flanders).—Reade, T. M.
Brünn (Moravia).—Tietze, E.
Brunswick (Germany).—Kloos, J.; Menzel, P.; Wollemann, A.
Brunswickite.—Fromme, J.
Brussels (Belgium).—Mourlon, M.; Rutot, A.
—— (—), ship-canal.—Rutot, A.
Brusselian.—Bommer, C.
Brüx (Bohemia). — Heurverges, R.; Muehlhauser, A.
Bryant (Ark.).—Hayes, C. W.
Bryograptus.—Elles, G. L., &c.
Bryozoa, Carboniferous.—Condra, C. B.
——, Cretaceous.—Canu, F.; Wanner, J.
——, Devonian.—Clarke, J. M.
——, Silurian.—Cumings, E. R.; Nickles, J. M.; Ruedemann, R.

Bryozoa, Tertiary. — Andrusov, N.; Maplestone, C. M.; Neviani, A.; Newton, R. B.; Ortmann, A. E.; Rovereto, G.
Bucania & *Bucanopsis*.—Weller, S.
Buccinum.—Brœgger, W. C., &c.; Ortmann, A. E.; Simionescŭ, J.
Buchiceras.—Hill, R. T.
Buchiola.—Drevermann, F.
Buckinghamshire.—Coomáráswámy, A. K.
Buckland, W. *See* Watson, J. A.
Budapest (Hungary).—Litschauer, L.; Lœrenthay, E.
Büdesheim Shales.—Holzapfel, E.
Budleigh Salterton (Devon).—Thomas, H. H.
Buffalo (N.Y.) Exhibition, 1901.—Yunge, E.
Buffelsdoorn (Transvaal).—Smith, W.
Building-stones, Austria.—Rosiwal, A.
——, Denmark.—Ussing, N. V.
——, Egypt.—Lucas, A.
——, England, &c.—Elsden, J. V.; Ussher, W. A. E.
——, Hungarian Danube quarries.—Pálfy, M. von.
——, Missouri.—Marbut, C. F.
——, Norway.—Elsden, J. V.
——, Sardinia.—Lovisato, D.
——, Saxony & Silesia.—Elsden, J. V.
——, Scotland.—Geikie, Sir A.; Rennie, Sir J.
——, Sweden.—Elsden, J. V., &c.; Lundbohm, H., &c.
——, Switzerland.—Bodmer-Beder, A.
——, Washington (U.S.A.).—Landes, H.
Builth (Brecon).—Rutley, F.
Bukova (Hungary).—Schafarzik, F.
Bulgaria.—Peucker, K.
Bulimina.—Chapman, F.; Choffat, P.; Liebus, A.; Reade, T. M., &c.
Bulimulus.—Cossmann, M.; Depéret, C.; Pallary, P.
Bulla.—Ortmann, A. E.; Simionescŭ, J.
Bungonia (N.S.W.).—Deane, H.
Bunter Pebble-Bed, Devon & Somerset.—Thomas, H. H.
Burlington (Iowa).—Waller, S.
Burma.—Griesbach, C. L.; Grundy, J.; Jack, R. L.
Burrows, annelid.—Groom, T. T.
Burrum Coalfield (Queensl.).—Rands, W. H., &c.
Burtinella.—Wanner, J.
Buru I. (D.E.I.).—Bœhm, G.
Bury (Lancs).—Pickstone, W.
Busumchwi, Lake (Ashanti).—Fergusson, M.
Butleyan.—Harmer, F. W.
Butterfly, fossil.—Radcliffe-Grote, A.
Buttermere (Cumberland).—Reade, T. M., &c.
Buzuluk R. (Don Cossacks).—Pavlov, A. V.
Bythia.—Lœrenthay, E.
Bythinia.—Lœrenthay, E.; Madsen, V., &c.
Bythocypris.—Ruedemann, R.
Bythocythere.—Chapman, F.

Cáceres (Spain).—Lozano, R. S.
Cacoxenite.—Wittich, E., &c.
Cadia (N.S.W.).—Jaquet, J. B.
Cadulus.—Brœgger, W. C., &c.
Caermarthenshire.—Codrington, T.
Caernarvonshire.—Elsden, J. V., &c.; Greenwell, A., &c.; Matley, C. A.; Reade, T. M.
Cæsalpina.—Engelhardt, H.
Cafaggio (Turin).—Trentanove, G.
Cagliari (Sardinia).—Lovisato, D.
Cairngorms.—Craig, E. H. C.
Cajatambo (Peru).—Torrico-y-Mesa, J.
Calabria (Italy).—Stefano, G. de.
Calamine.—Clarke, F. W., &c.; Pelatan, L.
Calamites.—Arcangeli, G.; Potonié, H.; Scott, D. H.
Calamophyllites.—Potonié, H.; Zeiller, R.
Calanna (Calabria).—Stefano, G. de.
Calaverite.—Macivor, R. W.; Penfield, S. L., &c.; Smith, G. F. H.
'Calcaire grossier,' Sardinia.—Lovisato, D.
——, Seine Valley.—Thomas, H.
Calcareous concretions & grits. *See* Concretions & Grits.
Calcite.—Artini, E.; Barbour, E. H.; Buttgenbach, H.; Cornwall, H. B.; Freyn, R.; Friedel, G.; Panebianco, G.; Sachs, A.; Ussing, N. V.; Zemiatčenski, P.; Zimanyi, K.
—— -sand.—Barbour, E. H., &c.
Caledon (Cape Colony).—Rogers, A. W., &c.
Caledonite.—Berg, G.
Calianassa.—Sturm, F.
California.—Anderson, F. M.; Arnold, D., &c.; Bordeaux, A.; Claypole, E. W.; Fairchild, H. Le R.; Hershey, O. H.; Hilgard, E. W.; Hoskold, C. A. L.; Lawson, A. C., &c.; Merriam, J. C.; Nutter, E. H., &c.,; Ochsenius, C.; Reid, J. A.; Spurr, J. E.; Turner, H. W.; Vaughan, T. W.
——. *See also* Gold, &c.
Callicrinus.—Weller, S.
Calliostoma.—Ortmann, A. E.
Callipteridium.—Arcangeli, G.
Callistriche.—Hartz, N.
Callochiton.—Brœgger, W. C., &c.
Caloceras.—Levi, G.
Calophyllum & *Campophyllum*.—Lebedev, N.
Calpionella.—Lorenz, T.
Calpurnia.—Cullis, C. G., &c.
Calvinia (Cape Colony). — Rogers, A. W.
Calycocarpus.—Guerich, G.
Calymene.—Beecher, C. E.
Camarophorella & *Camarophoria*. — Weller, S.
Camarosaurus.—Riggs, E. S.; Skiff, F. J. V.

Camarothœchia.—Clarke, J. M.; Drevermann, F.; Weller, S.; Wood, E.
Cambrian, Bornholm I.—Grœnwall, K. A.
——, Britanny.—Kerforne, K.
——, Canada.—Ami, H. M.; Bonney, T. G.; Jones, T. R.; Matthew, G. F.; Woodward, H.
——, Colorado.—Lee, W. T.
——, Europe.—Sollas, W. J.
——, German S.W. Africa.—Guerich, G.
——, Ireland.—Barrow, G.
——, Languedoc.—Bergeron, J., &c.; Pompeckj, J. F.
——, Malvern Hills.—Groom, T. T.
——, Maryland.—Willis, B.
——, Minnesota.—Hall, C. W.
——, Missouri.—Keyes, C. R.
——, New Jersey.—Kuemmel, H. B., &c.
——, New South Wales.—Etheridge, R., Jun.
——, New York.—Kemp, J. F.
—— phosphates, Germany.—Kruft, L.
——, Scotland.—Horne, J.; Peach, B. N.
——, Superior, Lake.—Willmott, A. B.
——, Sweden.—Grœnwall, K. A.; Holm, G., &c.; Moberg, J. C.; Ramsay, W.
——. *See* Pre-Cambrian, &c.
Cambridge Exploring Expedition.—Skeat, W. W.
Camden (Ark.).—Taff, J. A.
Camelus.—Nehring, A.
Camerino (Marches, Italy).—Mariani, M.
Cameroons (W. Africa).—Lacroix, A.; Solger, —.
Campagna (Italy).—Anon., 61; Verri, C.; Viola, C.
Campania (Italy).—Angelis d'Ossat, G. de; Guenther, R. T.; Manasse, E.
Campine (Belgium).—Forir, H.; Habets, A.; Habets, P.; Harzé, E.; Lohest, M.; Mourlon, M.; Van Ertborn, O.
Campodus.—Eastman, C. R.
Campo landslip (Ticino).—Heim, A.
Camptonectes.—Woods, H.
Camptonite.—Ogilvie, I. H.
Campyloneis.—Ries, H.
Campyloprion.—Eastman, C. R.
Canada, Arctic.—Bell, R.; Schuchert, C.
—— (E.).—Ami, H. M.; Grant, C. C.; Jones, T. R.; Leverett, F.; Matthew, G. F.; Obalski, J.; Parker, E. W.; Poole, H. S.; Rœsler, H.; Wilson, W. G.
——, Geological Survey. *See* Geological Surveys.
——, geology, 1900.—Ami, H. M.
——, minerals.—Hoffmann, G. C.
—— (N.W.).—Bell, R., &c.; Lambe, L. M.; Macconnell, R. G.; Osborn, H. F.
——, photographic surveying.—Wheeler, A. O.
——, Rocky Mts.—Bonney, T. G.; Dawson, G. M.; Woodward, H.
——. *See also* America (N.), Copper, Silurian, &c.
Cancellaria.—Ortmann, A. E.; Wanner, J.
Canis.—Studer, T.
Cannel-coal.—Renault, B.; Waller, G. A.
Cannostomites.—Maas, O.
Cañon, Colorado Grand.—Davis, W. M.
——, ——. *See also* Obit., of Powell, J. W.; & Anon., 13.
Cañon City (Colo.).—Vaillant, L.
Cantal (Auvergne).—Boule, M.; Cullis, C. G., &c.
Canterbury (Kent).—Whitaker, W.
—— (N.Z.).—Mackay, A.
Cantharidus.—Burckhardt, C.
Cape Colony.—Bastin, E. S.; Corstorphine, G. S.; Gibson, W.; Herbertson, A. J.; Mennell, F. P.; Ritso, B. W.; Rogers, A. W.; Schwarz, E. H. L.; Stewart, C.
Capertee Valley (N.S.W.).—Card, G. W.
Capri I. (Italy).—Bellini, R.
Caprinula.—Redlich, K. A.
Capulus.—Brœgger, W. C., &c.; Drevermann, F.; Weller, S.
Carabaya (Peru).—Balta, J.
Caracoles (Chili).—Labastie, F.
Caratomus.—Schlueter, C.
Carbonic acid in mineral waters.—Henrich, F.
Carboniferous, Arkansas.—Keyes, C. R.
——, Asia Minor.—Zeiller, R.
——, Belgium.—Bourgeat, —; Cornet, J., &c.; Destinez, P.; Forir, H., &c.; Fourmarier, P.; Lohest, M., &c.; Simoens, G.; Stainier, X.; Van Ertborn, O.
——, China.—Hoover, H. C.; Krasser, F.; Leclère, A.; Liebenam, W.; Reid, A.
——, Colorado.—Lee, W. T.
——, concretions.—Stocks, H. B.
——, Derbyshire.—Barnes, J.
——, Devon.—Ussher, W. A. E.
——, Durham.—Abbott, G.
——, France.—Termier, P.; Thévenin, A.
——, Gloucestershire.—Binks, J. P.
——, Harz.—Potonié, H.
——, Illinois.—Sellards, E. H.
——, Iowa.—Sardeson, F. W.; Weller, S.
——, Kansas.—Adams, G. I.; Prosser, C. S.
—— life-zones.—Hind, W.; Rhodes, J.
—— Limestone. *See* Limestones.
——, Man (I. of).—Dawkins, W. B.
——, Missouri.—Adams, G. I.; Marbut, C. F.; Rowley, R. R.; Weller, S.
——, natural pits in.—Cornet, J., &c.
——, Nebraska.—Condra, C. B.
——, New Brunswick—Ells, R. W.
——, New South Wales.—Dunn, W. S.
——, Pennsylvania.—White, D.
——, Peru.—Balta, J.
——, Sahara.—Flamand, G. B. M.; Gautier, E. F.
—— Scotland.—Cadell, H. M.; Dron, R. W.; Geikie, Sir A.

Carboniferous, Silesia.—Dathe, E.; Frech F.; Michael, R.

——, Spain.—Mallada, L.

——, Staffordshire.—Hind, W.; Stobbs, J. T.

——, Texas, &c.—Adams, G. J.

——, Tyrol.—Kerner, F.

——, Wales (S.).—Strahan, A.; Teall, J. J. H., &c.

——, Westmoreland.—Rhodes, J.

——, Westphalia.—Denckmann, A.

——, West Virginia.—White, I. C.

——, Yorkshire.—Hind, W.; Hughes, T. McK.; Kidston, R.; Rhodes, J.; Wellburn, E. D.

——. *See also* Coal, &c.

Carbula.—Cossmann, M.

Carcassonne (Languedoc).—Michel-Lévy, A., &c.

Carcoar (N.S.W.).—Jaquet, J. B.

Cardiaster.—Sturm, F.

Cardiff (Glam.).—Strahan, A., &c.; Wight, W. D.

Cardinia.—Roth, S.

Cardiocarpus.—Arcangeli, G.; Kidston, R.; Zeiller, R.

Cardiopsis.—Weller, S.

Cardita.—Bittner, A.; Ortmann, A. E.; Quaas, A.

Cardium.—Andrusov, N.; Brœgger, W. C., &c.; Choffat, P.; Cossmann, M.; Dainelli, G.; Ortmann, A. E.; Quaas, A.; Ravn, J. P. J.; Simionescŭ, J.; Stefani, C. de; Sturm, F.; Toula, F.; Trentanove, G.

Cariboo R. (B.C.).—Robertson, W. F.

Caricella & *Carolia.*—Quaas, A.

Carinthia (Austria).—Canaval, R.; Geyer, G.; Mojsisovics, E. von.

Carladez (Auvergne).—Boule, M.

Carlisle (Cumberland).—Davison, C.

Carlshamn (Sweden).—Elsden, J. V., &c.

Carnallite.—Buecking, H.

Carnic Alps. *See* Alps.

Carnidia.—Bittner, A.

Carniola (Austria).—Bittner, A.; Kossmat, F.

Carolibergia.—Ameghino, F.; Mercerat, A.

Carolina (N.).—Pratt, J. H.; Robinson, H. H.

—— (S.).—Parker, E. W.

Caroline Is. (Polynesia).—Kayser, E.

Caroloameghinia & *Carolozittelia.*—Ameghino, F.

Carpathian Mts.—Liebus, A., &c.; Lugeon, M.; Maas, O.; Mrazec, L., &c.; Sevostos, R.

Carpenteria.—Chapman, F.; Newton, R. B., &c.

Carpolithes.—Kidston, R.

Carrara (Tuscany).—Adams, F. D.; Anon., 66.

Carya.—Engelhardt, H.

Carydium.—Maurer, F.

Caryophyllia.—Remeš, M.; Vaughan, T. W.; Wanner, J.

Caryosmilia.—Quaas, A.; Wanner, J.

Cashmere (India).—Frech, F.

Caspian Sea.—Andrussov, N.

Cassia.—Engelhardt, H.

Cassianella.—Bittner, A.

Cassidaria.—Dainelli, G.; Wanner, J.

Cassine (Piedmont).—Zambonini, F.

Cassiope.—Rehbinder, R.

Cassiopeia.—Maas, O.

Cassis.—Cossmann, M.

Cassiterite.—Muller, J. A.; Woolnough, W. G.

Castailhac (Aveyron).—Arsandaux, H.

Castel-del-Monte (Umbria).—Angelis d'Ossat, G. de.

Castello, Val di (Tuscany).—Achiardi, G. d'.

Castelnuovo (Tuscany).—Levi, G.; Ugolini, R.

Casterlian.—Harmer, F. W.

Castiglioncello (Tuscany).—Ugolini, R.

Castle Cary (Somerset).—Kennard, A. S., &c.

Castle-Rock region (Colorado).—Lee, W. T.

Castoridæ, Tertiary.—Newton, E. T.; Schlosser, M.

Caswell Bay (Gower).—Monckton, H. W.

Catalonia (Spain).—Barrois, C.

Catamaran R. (Tasm.).—Twelvetrees, W. H.

Catenariopsis.—Maplestone, C. M.

Cattegat.—Bonsdorff, A.

Caturus.—Sauvage, H. E.

Caucasus (Russia).—Bogdanovich, K.; Golubiatnikov, D. V.; Sabatier, P., &c.; Sokolov, N.

Caulerpa.—Lorenz, T.

Caverns & caves, Alpes-Maritimes.—Verneau, R.

——, Antrim.—Welch, R. J.

——, Bavaria.—Schlosser, M.

——, Belgium.—Fraipont, J.; Van den Broeck, E.

——, Devon.—Hunt, A. R.; Watson, J. A.

——, Dordogne.—Anon., 54; Capitan, —, &c.; Harlé, É.; Koken, E.; Moissan, H.; Rivière, É.

——, Harz.—Blasius, W.

——, Haute Loire.—Boule, M.

——, Kent.—Holmes, T. V., &c.

——, Lombardy.—Flores, E.

——, New South Wales.—Maclachlan, D. C.; Trickett, O.

——, New Zealand.—Macleod, H. N.

——, Patagonia.—Hauthal, R.

——, recent work on.—Martel, E. A.

——, Remouchamps.—Van den Broeck, E.

——, Sligo.—Præger, R. Ll., &c.; Scharff, R. F.; Ussher, R. J.

——, Somerset.—Bolton, H., &c.; Hunt, A. R.; Wilson, E., &c.

——, Swiss.—Martel, E. A.

——, Vaucluse, &c.—Martel, E. A.

——, Westphalia.—Kœnen, C.

Cayenne (French Guiana).—Geay, F.

Caythorpe (Lincoln).—Preston, H.

Cazedarnes (Hérault).—Depéret, C.
Cederbergen (Cape Colony).—Rogers, A. W., &c.
Cedrelophyllum.—Deane, H.
Celastrus.—Engelhardt, H.
Celebes (D.E.I.).—Buecking, H.; Koperberg, M.; Liebenam, W.; Molengraaff, G. A. F.; Wichmann, A.
Čelebi-jaurn-beli Mt. (Crimea).—Zemiatčenski, P.
Celestite.—Baker, B. A.
Cellaria.—Maplestone, C. M.; Ortmann, A. E.
Cellepora.—Newton, R. B., &c.
Cellular limestone.—Abbott, G.
Celluloxylon.—Nevius, J. N.
Cement, crystalline.—Eckel, E.; Mackie, W.
—— limestones, Sweden.—Holm, G., &c.
—— ——, Tuscany.—Vinassa de Regny, P.
Cenomanian, English.—Jukes-Browne, A. J.
——, French.—Michalet, A.
——, Silesian.—Volz, W.
——. *See also* Chalk, &c.
Centronella.—Maurer, F.
Cephalomys & *Cephanodus*.—Ameghino, F.
Cephalopoda, Cambrian.—Groom, T. T.
——, Carboniferous.—Weller, S.
——, Cretaceous.—Burckhardt, C.; Dainelli, G.; Elbert, J.; Hill, R. T.; Hoyer, —; Krause, P. G.; Liebus, A., &c.; Petrascheck, W.; Quaas, A.; Ravn, J. P. J.; Sarasin, C., &c.; Sayn, G.; Stanton, T. W.; Sturm, F.; Thiot, L.; Wanner, J.; Whitfield, R. P.
——, Devonian.—Clarke, J. M.; Denckmann, A.; Drevermann, F.; Frech, F.
——, Jurassic.—Crick, G. C.; Fucini, A.; Haizmann, W.; Janensch, W.; Levi, G.; Loriol, P. de; Pompeckj, J. F.; Remeš, M.; Sayn, G.
——, Silurian.—Holm, G., &c.; Kruft, L.; Peach, B. N.; Reed, F. R. C.; Schuchert, C.
——, structure of.—Jækel, O.
——, Tertiary.—Crick, G. C.; Dainelli, G.; Ihering, H. von.
——, Triassic.—Frech, F.; Longhi, P.; Mariani, E.; Mojsisovics, E. von; Tommasi, A.
Cephalotheca.—Nathorst, A.
Cerargyrite.—Prior, G. T., &c.
Ceratocaris.—Kruft, L.
Ceratopyge.—Holm, G., &c.
Ceratorhinus.—Toula, F.
Cercis.—Turner, H. W.
Cercomya.—Loriol, P. de, &c.
Cergy (Seine-et-Oise).—Rutot, A.
Cerite.—Schiffer, E. C.
Ceritella & *Cerithinella*.—Schlosser, M.
Cerithiopsis.—Brœgger, W. C., &c.
Cerithium.—Choffat, P.; Dainelli, G.; Deninger, K.; Loriol, P. de, &c.; Pallary, P.; Quaas, A.; Ravn, J. P. J. Rehbinder, R.; Simionescū, J.; Wanner, J.
Ceromya.—Janensch, W.; Sturm, F.
Cerussite.—Buttgenbach, H.; Goldschmidt, V.; Goodchild, J. G.; Zimányi, K.
Cervantite.—Angelis d'Ossat, G. de.
Cervidæ, Quaternary.—Harlé, H.; Hartz, N.; Newton, E. T.
Cervus.—Hartz, N.; Schlosser, M.
Cetacea, Tertiary.—Dal Piaz, G.; Ugolini, R.
Cetona, Monte (Siena).—Fucini, A.
Ceylon.—Church, A. H.; Coomáraswámy, A. K.; Liffa, A.; Rœsler, H.; Schiffer, E. C.; Weber, H. A.
Chabazite.—Neuwirth, V.; Steiger, G.; Zambonini, F.
Chalcocite.—Kœnig, G. A.
Chalcodite.—Fromme, J.
Chalcopyrite.—Buttgenbach, H.
Chalk, ammonites, &c. *See* Ammonites, &c.
——, Antrim.—Wright, J.
——, Baltic.—Hennig, A.
——, Belgium.—Kenna, A.; Rutot, A.
——, Brunswick.—Wollemann, A.
——, Carpathian.—Liebus, A., &c.; Maas, O.
——, Dalmatia.—Schubert, R. J.
——, Denmark.—Grœnwall, K. A.; Ravn, J. P. J.
——, Devon.—Jukes-Browne, A. J.
——, Egypt.—Wanner, J.
——, fishes.—Woodward, A. S. *See also* Fishes.
——, flints.—Longe, F. D.
——, France.—Gosselet, J.; Leriche, M.; Rabelle, A.
——, Galicia.—Friedberg, W.; Grzybowski, J.
——, Hampshire.—Reid, C.; Sherborn, C. D.
——, Hanover.—Mueller, G.; Wollemann, A.
——, Herts.—Hopkinson, J.
——, Lincolnshire.—Hill, W.
—— Lippl.—Elbert, J.
——, London Basin.—Whitaker, W.
——, Maestricht.—Lambert, J.
——, Norfolk.—Longe, F. D.
——, phosphatic.—Gosselet, J.; Leriche, M.; Mercey, N. de; Rabelle, A.
——, Saxony.—Petrascheck, W.
——, Sussex.—Macpherson, W.
——, Texas.—Hill, R. T.
—— valleys, dry.—Martin, E. A.
——, Yonne.—Vallette, A.
Chalky Boulder-Clay, Suffolk, &c.—Harmer, F. W.; Hill, E.
Chalmersite.—Gaubert, P.; Hussak, E.; Rinne, F.
Chama.—Quaas, A.; Ravn, J. P. J.; Reis, O. M.
Chambéry (Savoy).—Michel-Lévy, A., &c.
Chamidæ.—Pâquier, V.

Champlain Valley (New York, &c.).—Ogilvie, I. H.
Champlain-Appalachian fault. — Ami, H. M.
Chanca, Cerros de (Peru).—Torrico-y-Mesa, J.
Chanco (Chile).—Albert, F.
Chandlar R. (Alaska).—Schrader, F. C.
Channel Is.—Naylor, W.
Chara.—Liebus, A.; Potonié, H.
Chara-lime, Denmark. — Wesenberg-Lund, C.
Chara-marl, Hitchin.—Chapman, F.
Charactophyllum.—Simpson, G. B.
Charente (France). — Douvillé, H.; Michel-Lévy, A., &c.
Charleroi (Hainault).—Rutot, A.
Charles R. (Mass.).—Clapp, F. G.
Charnockite, Ceylon.—Coomáraswámy, A. K.
Charnwood Forest (Leicester).—Anon., 45; Rœchling, H. A., &c.; Watts, W. W.
Charters-Towers Goldfield (Queensl.).—Maclaren, J. M.
Chasmops.—Holm, G., &c.
Chateyroux (Piedmont). — Zambonini F.
Chatham I. (N.Z.).—Dieseldorff, A.; Hutton, F. W.
Chautauqua Co. (N.Y.).—Orton, E.
Chauxhe (Liége).—Destinez, P.
Cheddar Gorge (Somerset).—Callaway, C.; Cook, E. H.
Cheiloceras.—Frech, F.
Cheilostomellidæ.—Chapman, F.
Cheiothyris.—Weller, S.
Cheirotherium.—Woodward, A. S.
Cheirurus.—Groom, T. T., &c.
Chelles (Seine-et-Marne).—Rutot, A.
Chelonia, Cretaceous. — Bell, B., &c.; Lambe, L. M.; Wieland, G. R.; Williston, S. W.
——, Jurassic.—Sauvage, H. E.
——, Tertiary.—Hay, O. P.; Seguenza, G.; Stefano, G. de.
——, Triassic.—Jækel, O.; Lóczy, L. von.
——. *See also* Reptilia.
Chelsea (London).—Marshall, A. B.
Chemakha. *See* Shemakha.
Chemical classification of igneous rocks.—Osann, A.
Chemung formation.—Beecher, C. E.
Chenago Valley (N.Y.).—Clarke, J. M.
Chengwatana series.—Hall, C. W.
Chenopus.—Choffat, P.
Chert, Devon.—Ussher, W. A. E.
Cheshire.—Edwards, W.
Chetyzoon.—Huene, F. von.
Cheviot Co. (N.Z.).—Mackay, A.
Cheviot Hills (Northumberland).—Kendall, P. F., &c.
Chiastolite-slate. — Hinxman, L. W., &c.
Chicagocrinus.—Weller, S.
Chico-beds.—Merriam, J. C.
Chieri (Lombardy).—Audenino, L.
Chile (S. Am.).—Albert, F.; Berg, G.; Darapski, L.; Endter, A.; Hoskold, C. A. L.; Labastie, F.; Œhmichen, H.; Servat, F.; Stuebel, A.
Chi Li (China).—Hoover, H. C.
Chillesford Clay.—Harmer, F. W.
China. — Diener, C.; Gerrard, J.; Hoover, H. C.; Jack, R. L.; Krasser, F.; Leclère, A.; Liebenam, W.; Martelli, A.; Reid, A.; Richthofen, F. von; Schlosser, M.
Chippewa Pt. (Wisc.).—Collie, G. L.
Chislehurst (Kent).—Holmes, T. V., &c.
Chitaldroog (Mysore).—Sambasiva Iyer, V. S.
Chitina R. (Alaska).—Rohn, O.
Chiton.—Ashby, E., &c.; Brœgger, W. C., &c.
Chitral (Himalayas).—Macmahon, C. A., &c.
Chlamys.—Woods, H.
Chlamydophyllum.—Počta, P.
Chlorine, water & natural. — Myers, W. S.
Chlorite-group.—Neuwirth, V.
Chloritoid.—Bœris, G.
Chloromelanite. — Bodmer-Beder, A.; Franchi, S.
Chloropal.—Turner, H. W.
Chobham Ridges (Surrey).—Monckton, H. W.
Choctaw (Indian Terr.).—Taff, J. A., &c.
Chœropotamus.—Schlosser, M.
Chondrites.—Engelhardt, H.; Pfaff, F.
Chondrodonta.—Choffat, P.
Chonetes.—Clarke, J. M.; Destinez, P.; Dunn, W. S.; Weller, S.; Wood, E.
Chonocardium & *Chonostrophia.*—Clarke, J. M.
Chonopectus-sandstone, Iowa.—Weller, 8.
Chonophyllum.—Počta, P.
Christionia.—Ruedemann, R.
Christiania (Norway).—Brœgger, W. C., &c.
Chromite, Turkey.—Anon., 65.
——, United States.—Pratt, J. H.
——. *See also* Iron.
Chrompicotite.—Hoffmann, G. C.
Chrysemys.—Stefano, G. de.
Chrysobalanus.—Turner, H. W.
Chrysoberyl.—Liffa, A.; Moses, A. J.
Chrysocolla.—Jannettaz, E.
Chrysodomus.—Ortmann, A. E.; Quaas, A.; Wanner, J.
Chrysophrys.—Stefano, G. de.
Chrysostoma.—Schlosser, M.
Cidaris.—Airaghi, C.; Loriol, P. de; Oppenheim, P.; Ortmann, A. E.; Wanner, J.
Cilician Taurus (Asia Minor).—Schaffer, F.; Toula, F.
Cimoliasaurus.—Lambe, L. M.
Cimolichthys.—Woodward, A. S.
Cimone, Mte. (Prov. Rome).—Chistoni, C.
Cinchonidium.—Turner, H. W.
Cincinnati (U.S.A.).—Nickles, J. M.

Cincinnati Group.—Cumings, E. R.
Cinetoconia.—Renault, B.
Ciney (Namur).—Soreil, G.
Cingula & *Clathurella.*—Brœgger, W. C., &c.
Cinnabar.—Bauerman, H.
Cinnamomum. — Cullis, C. G., &c.; Deane, H.; Engelhardt, H.; Hill, R. T.
Cinulia.—Ravn, J. P. J.; Stanton, T. W.; Sturm, F.
Cissus.—Engelhardt, H.
Cistella & *Clausilia.*—Cossmann, M.
Cistudo.—Stefano, G. de.
Ciudad Real (Spain).—Coello, C.
Cladiscites.—Mojsisovics, E. von.
Cladiscothallus & *Cladothryx.* — Renault, B.
Cladochonus & *Clathophyllum.*—Počta, P.
Cladocora.—Gane, H. S.
Cladodus.—Hay, O. P.
Cladopora.—Clarke, J. M.
Clænodon.—Matthew, W. D.
Clanwilliam (Cape Colony).—Rogers, A. W., &c.
Claosaurus.—Beecher, C. E.
Clarence (N.S.W.).—Dun, W. S.
CLARKE Collection, Cambridge.—Arber, E. A. N.; Kurtz, F.
Clarno Beds.—Merriam, J. C.
Classification, rock-. *See* Rocks, Stratigraphical, &c.
Clausthal (Harz).—Beushausen, L.
Clavagella.—Sturm, F.
Clavulina.—Grzybowski, J.
CLAYPOLE, E. W. *See* Comstock, T. B., &c.; Woodward, A. S.
Clay-with-flints, Paris Basin. — Grossouvre, A. de.
Clays, Auvergne volcanic brick-.—Brunhes, B., &c.
——, Belgian.—Cornet, J.
——, Connecticut.—Swanston, W.
——, constituents of.—Merrill, G. P.
——, Cornwall, &c.—Collins, J. H.
——, Maryland & New York.—Ries, H.
——, Man (I. of).—Wright, J.
——, Massachusetts.—Brown, R. M.
——, Minnesota.—Berkey, C. P.
——, Paris-basin plastic.—Boule, M.
——. *See* Soils.
Cleavage, mineral.—Friedel, G.; Sollas, W. J.; Viola, C.
——, slates, &c. — Reade, T. M., &c.; Spring, W.
Cleave, The (Dartmoor). — Lowe, H. J.
Clemmys.—Stefano, G. de.
Clermont (Hérault).—Nicklès, R.
Clermont-Ferrand (Auvergne).—Cullis, C. G., &c.
Cles (Tyrol).—Hammer, W.
Clessinia.—Andrusov, N.
Cleveland Hills (Yorks).—Kendall, P. F.
Cleveland (Ohio).—Pierce, S. J.
—— Shale.—Dean, B.
Cliffs, Permo-Carboniferous fossil, Tasmania.—Johnston, R. M.
Clifton (Bristol).—Callaway, C.
Cliftonite.—Davison, J. M.
Climates, geological. — Ekholm, N.; Harmer, F. W.
——, salt-lakes &.—Kalecsinski, A. von.
Clinch Valley (Va.).—Jones, C. C.
Clinton Co. (N.Y.).—Cushing, H. P.
Clinton, Port (Queensl.).—Cameron, W. E.
Cliona.—Rovereto, G.
Clisiophyllum.—Simpson, G. B.
Clogher Head (Kerry).—Gardiner, C. I., &c.
Clonakilty (Cork).—Reade, T. M.
Clonbrock (Galway).—Welch, R.
Clonograptus.—Elles, G. L., &c.
'Cluse.' *See* Valleys, transverse.
Clyde R. (Scotland).—Flett, J. S.
Clydesdale (Scotland).—Dron, R. W.
Clydonautilus.—Mojsisovics, E. von.
Clymenia. — Denckmann, A.; Drevermann, F.; Frech, F.
Clypeaster.—Airaghi, C.; Loriol, P. de; Toula, F.
Coal, Alaska. — Mendenhall, W. C.; Schrader, F. C., &c.
——, algæ, &c. in, & formation of.—Renault, B.
——, analyses of British.—Anon., 28; Douglas, J.; Pollard, W.
——, analyses of French. — Coignard, —, &c.
——, Argentina.—Bodenbender, G.
——, Arkansas.—Taff, J. A.
——, Austria-Hungary, analyses.—Přiwoznik, F.
——, Australian, Chilian, & French.—Renault, B.
——, Baden.—Sauer, A.
——, Bohemia.—Hibsch, J.E.; Purkyně, C. von; Slavik, F.
——, Bosnia.—Katzer, F.
——, Brazil.—Bodenbender, G.; Frech, F.
——, British Columbia.—Prior, E. G.; Robertson, W. F.
——, Carniola.—Kossmat, F.
——, China.—Hoover, H. C.; Leclère, A.; Liebenam, W.; Reid, A.
——, Colorado & New Mexico.—Lakes, A.
—— Commission, Royal. — Anon., 52; Elsden, J. V.
—— ——, ——. New Zealand.—Haselden, W. R., &c.
——, composition of British.—Louis, H.
——, diabase containing.—Petrascheck, W.
——, duration of British supply. — Brough, B. H.; Lewis, Sir W. T.; Pickstone, W.; Wethered, E. B.
—— -fall Commission, Prussian.—Behrens, —, &c.; Dobers, —, &c.; Illner, —, &c.
——, gases in.—Bedson, P. P.; Broockmann, —.

Coal, Great Britain. — Anon., 28, 52; Atkinson, J. B., &c.; Brough, B. H.; Foster, C. Le N., &c.; Lewis, Sir W. T.; Lohest, M.; Louis, H.; Pickstone, W.; Pollard, W.; Renault, B.; Wethered, E. B.
——, Hungary. — Litschauer, L.; Renault, B.; Telegd, L. R. von.
——, India.—Clarke, R. W.; Dunstan, W. R.; Frech, F.; Griesbach, C. L.; Grundy, J.; Reader, G. F.
——, Indian Territory.—Taff, J. A., &c.
——, Kansas & Texas.—Adams, G. I.
—— Measures. *See* Carboniferous.
——, Missouri.—Adams, G. I.; Marbut, C. F.
——, New South Wales.—Atkinson, A. A.; Cardew, J. H.; Frech, F.; Maclachlan, D. C.
——, New Zealand.—Haselden, W. R., &c.; Hayes, J.; Macgowan, J.
——, Nova Scotia.—Gilpin, E., Jun.
——, Pennsylvania. — Lyman, B. S.; Renault, B.; White, D.
——, Posen.—Krug, —.
—— plants. *See* Plants.
——, Queensland. — Cameron, W. E.; Dunstan, B.; Rands, W. H., &c.
——, Russia.—Loranski, A.; Renault, B.
——, Siberia.—Gagel, C.
——, Spain.—Mallada, L.; Renault, B.
——, sulphur in.—Antony, U.
——, Tasmania. — Johnston, R. M.; Twelvetrees, W. H.; Wallace, W. H., &c.; Waller, G. A.
——, Teutoburger Wald.—Schlueter, C.
——, Transvaal.—Anon., 29; Renault, B.
——, Turkey.—English, T.
——, United States, occurrence. — Parker, E. W.
——, Victoria (Austral.).—Stirling, J.
——, Virginia.—Jones, C. C.
——, Washington (U.S.A.). — Landes, H.
——, Wyoming.—Darton, N. H.
——, Zululand.—Gray, C. J., &c.
——. *See also* Coalfields, Lignite, &c.
Coalfields, Africa (S.). *See* Natal, &c.
——, Belgium. — Forir, H.; Habets, A.; Habets, P.; Harzé, E.; Lohest, M.; Mourlon, M.; Simoens, G.; Stainier, X.
——, ——, dead ground.—Van Ertborn, O.
——, Bohemia.—Weithofer, K. A.
——, Cape Colony.—Anon., 32.
——, Continental & British.—Lohest, M.; Stainier, X.
——, Crow's-Nest.—Bell, R., &c.; Prior, E. G.; Robertson, W. F.
——, Cumberland.—Arber, E. A. N.
——, Gloucestershire.—Binks, J. C.
——, Japan.—Anon., 35; Nardin, E. W.
——, Lancashire.—Pickstone, W.
——, Leicestershire.—Anon., 36.
Coalfields, Loire.—Coste, E.; Dobers, —, &c.; Friedel, G.
——, Natal.—Anderson, W., &c.; Gray, C. J., &c.
——, New Brunswick.—Poole, H. S.
——, New South Wales.—Atkinson, A. A.; Cardew, J. H.
——, Nord.—Stainier, X.
——, Rampur.—Reader, G. F.
——, Rhenish-Prussia.—Illner, —, &c.; Jacob, —.
——, Rhodesia.—Anon., 27.
——, Saône-et-Loire.—Dobers, —, &c.
——, Scotland.—Anon., 30; Cadell, H. M.; Dron, R. W.; Geikie, Sir A.; Kirkby, R.; Martin, R.
——, Somerset.—Elsden, J. V.; Steart, F. A.
——, Staffordshire.—Stobbs, J. T.
——, Tyrol.—Keyserling, H. von.
—— Wales (S.).—Anon., 34; Strahan, A., &c.; Teall, J. J. H., &c.
——, Westphalia.—Middelschulte, A.
——. *See also* Coal.
Coast-changes, New Zealand. — Park, J.
——-——, Scandinavia.—Bonsdorff, A.
——-——. *See also* Land.
Coast-shingles, waves &.—Hunt, A. R.; Wheeler, W. H.
Coast-weathering.—Andrimont, W. d'; Avebury, Lord; Wheeler, W. H.
Cobalt.—Krusch, P.
Coblenzian.—Drevermann, F.
Cocconeis.—Pantocsek, J.
Cocconema.—Reis, H.
Cochillus.—Ameghino, F.
Cocos Keeling Atoll (Indian Ocean).—Chapman, F.
Coddon-Hill Beds.—Woodward, H.
Codiacrinus.—Œhlert, D. P.
Codonophyton.—Nathorst, A.
Cœcum.—Brœgger, W. C., &c.
Cœlacanthus.—Eastman, C. R.
Cœlodus.—Leriche, M,; Sauvage, H. E.
Cœlopleurus.—Quaas, A.
Cœlosmilia.—Wanner, J.
Cœlospira.—Clarke, J. M.
Cœlutætus.—Ameghino, F.
Cœnites.—Počta, P.
Cogne, Val de (Piedmont).—Bonney, T. G.
Coldwell (Ont.).—Coleman, A. P.
Colebrook (Tasmania).—Waller, G. A.
Colemanite.—Eakle, A. S.
Colhuelia.—Roth, S.
Colobodus.—Gortani, M.
Colombia (S. Am.). — Russell, A. J.; Stuebel, A.
Colorado (U.S.A.).—Anon., 13; Cross, W., &c.; Davis, W. M.; Goldsmith, E.; Hartman, F.; Hatcher, J. B.; Hay, O. P.; Johnson, W. D.; Knight, W. C.; Lakes, A.; Lee, W. T.; Matthew, W. D.; Newell, F. H.; Ransome, F. L.; Rœsler, H.; Skiff, F. J. V.; Vaillant, L.; Van Horn, F. R.; Yunge, W.

Colorado, Serro, Aruba I.—Van Oort, E. D.
Coloration, Nile Cataracts black rocks.—Lortet, —, &c.
Colpodon-beds, Patagonia.—Ameghino, F.
Columbellidæ.—Pace, S.
Columbia Co. (N.Y.).—Clarke, J. M.
Comatula, Cretaceous.—Springer, F.
Combe Pyne (Dorset).—Thomas, H. H., &c.; Woodward, H. B.
Comendite.—Washington, H. S.
Commentry (Allier).—Thevenin, A.
Como, Lake (N. Italy).—Baltzer, A.
Comstock (Nevada).—Yunge, G.
Conchite.—Gaubert, P.
Concretions, calcareous.—Clarke, J. M.
——, Cambrian.—Holm, G., &c.
——, clay.—Swanston, W.
——, Coal-Measure.—Stocks, H. B.
——, sand-crystals &.—Barbour, E. H.
——. *See also* Limestone.
Condona.—Capeder, G.
Condroz massif (Namur).—Lohest, M., &c.
Cone-in-cone limestone, Otago.—Hamilton, A.
Conemaugh Formation, West Virginia.—White, I. C.
Congeria.—Andrusov, N.; Hœrnes, R.; Lœrenthay, E.
—— -beds, Lr. Austria.—Rzehak, A.
Conglomerates, Bavaria.—Ammon, L. von.
——, Carboniferous.—Bonney, T. G.
——, Dwyka.—Bastin, E. S.
——, France.—Preller, C. S. Du R.
——, Harz.—Brandes, G.
——, Malmédy.—Renier, A.
——, Permian.—Bonney, T. G.; Kendall, P. F.
——, Switzerland.—Penck, A., &c. Preller, C. S. Du R.
——, Transvaal.—Pearson, H.
——, Umbria.—Ristori, G.
Congo Free State (Africa).—Lemaire, C.
——, French.—Pelatan, L.
Congress, Geological, Paris (1900).—Frazer, P.; Stuart-Menteath, P. W.
——, ——, Vienna (1903).—Anon., 42.
——, Hygienic, Ostend, 1901.—Mourlon, M.
——, Italian Geographical, Lugano.—Mariani, E.
——, Seismological.—Kœvesligethi, R. von; Rudolph, E., &c.; Schafarzik, F.
Connecticut (U.S.A.).—Bowman, H. L.; Eggleston, J. W.; Emerson, B. K.; Hobbs, W. H.; Swanston, W.
Connecticut R. (U.S.A.).—Davis, W. M.; Hitchcock, C. H.
Conocardium.—Drevermann, F.; Etheridge, R., Jun.; Weller, S.
Conoclypeus & *Conocrinus*.—Oppenheim, P.
Conocoryphe.—Grœnwall, K. A.
Constance, Lake of.—Penck, A., &c.; Rothpletz, A.; Schalch, F.
Constantine (Algeria).—Blayac, J.
Contact-deposits.—Lindgren, W.
—— ——. *See also* Ore-enrichment.
—— metamorphism.—Barrell, J.; Lacroix, A.; Rosenbusch, H.; Smyth, C. H., Jun.; Sœllner, J.; Weinschenk, E.
Conte, J. Le. *See* Le Conte, J.
Conularia.—Reed, F. R. C.; Weller, S.
Conulus.—Brœgger, W. C., &c.
Conus.—Ravn, J. P. J.
Coolgardie (W. Austral.).—Howell, A.; King, H. S., &c.; Maitland, A. G. Smith, H. V.
Coombing (N.S.W.).—Jaquet, J. B.
Copaquire (Chile).—Œhmichen, H.
Copiapó (Chile).—Endter, A.
Coppename R. (Dutch Guiana).—Bergt, W.
Copper, Alaska.—Brooks, A. H.; Schrader, F. C., &c.
——, Algeria.—Coignard, —, &c.; Pelatan, L.
——, Angola.—Voit, F. W.
—— Australia (S.).—Hancock, H. L.; Mennell, F. P.; O'Loughlin, L., &c.
——, Austria-Hungary.—Přiwoznik, E.
——, British Columbia.—Robertson, W. F.
——, Chile.—Endter, A.; Œhmichen, H.
——, China.—Leclère, A.
——, Congo R & Indo-China.—Pelatan, L.
——, Cornwall & Devon.—Collins, J. H.
——, France.—Coignard, —, &c.; Emmons, S. F.
——, India.—Griesbach, C. L.
——, Kawau I.—Baker, W. H.
——, Morocco.—Pelatan, L.
——, Namaqualand.—Schenck, A.
——, New Jersey.—Kuemmel, H. B.
——, New South Wales.—Carne, J. E.; Maclachlan, D. C.
——, Oklahoma.—Haworth, E.
——, Peru.—Loredo, J. A.
—— pyrites.—Albuquerque d'Orey, F. de; Prior, G. T.
——, Scotland.—Goodchild, J. G.
——, Siberia.—Gagel, C.
——, Spain, &c.—Klockmann, F.; Lozano, R. S.
——, Sweden.—Petersson, W.; Strandmark, J. E.
——, Tanganyika L.—Langhaus, P.
——, Tasmania.—Twelvetrees, W. H.; Wallace, W. H., &c.; Waller, G. A.
——, Transcaucasus.—Ermisch, —.
Copper R. (Alaska).—Schrader, F. C., &c.
Coptechinus.—Oppenheim, P.
Coptochilus.—Dainelli, G.
Coptosoma.—Lambert, J.
Coral-reefs, &c.—Agassiz, A.; Crossland, C.; Gardiner, J. S.; Grant, C. C.; Stromer, E.; Werth, E.; Yoshiwara, S.
Coralline Crag.—Harmer, F. W.
Corals, Cretaceous.—Tornquist, A.; Wanner, J.

Corals, Devonian.—Grant, C. C.; Lebedev, N.; Macmahon, C. A.; Simpson, G. B.
——, Jurassic.—Remeš, M.
——, Quaternary.—Vaughan, T. W.
——, Silurian.—Cumings, E. R.; Počta, P.; Reed, F. R. C.; Schuchert, C.; Simpson, G. B.
——, Tertiary.—Gane, H. S.; Procházka, V. J.
Corax.—Wanner, J.
Corbières (Aude).—Grossouvre, A. de.
Corbis.—Quaas, A.
Corbula.—Brœgger, W. C., &c.; Ortmann, A. E.; Pallary, P.; Procházka, V. J.; Quaas, A.; Rehbinder, B.; Stanton, T. W.; Trentanove, G.
Corbulamella.—Sturm, F.
Corchorites.—Deane, H.
Cordaianthus & *Cordiocarpus.* — Kidston, R.
Cordaites.—Kidston, R.; Krasser, F.; Renault, B.
Cordaixylon.—Renault, B.
Cordania & *Cornulites.*—Clarke, J. M.
Cordierite, Austria (U.).—Graber, H. V.; Handmann, R.
——, Scotland.—Hinxman, L. W., &c.
——, Victoria (Austral.).—Mennell, F. P.
Cordilleras. *See* Rocky Mts.
Cordova (Spain).—Mallada, L.
Corfe Castle (Dorset).—White, H. J. O.
Corfino Mts. (Tuscany).—Levi, G.
Cork, Co. (Ireland).—Anon., 45; Porter, J.; Reade, T. M.
Cornbrash, Wiltshire.—Reynolds, S. H., &c.
Corniferous fauna, Appalachian.—Weller, S.
Cornu, A. *See* Mascart, —, &c.
Cornus.—Cullis, C. G., &c.
Cornwall.—Bullen, R. A.; Collins, J. H.; Flett, J. S.; Fox, H.; Jukes-Browne, A. J.; Lowe, H. J.; Mill, H. R.; Reid, C.; Rœsler, H.; Teall, J. J. H., &c.; Ussher, W. A. E.
Corrèze.—Cullis, C. G., &c.
Corsica, I. of.—Brives, A.; Ferton, C.; Joleaud, A.; Meunier, St.; Peron, A.
Corton (Suffolk).—Woodward, H. B.
Corundum.—Emerson, B. K.; Goodwin, W. L.; Lawson, A. C.; Melczer, G.; Pratt, J. H.
Corymbocrinus.—Weller, S.
Corynexochus.—Grœnwall, K. A.
Costa, O. G.—Fornasini, C.
Côte-aux-Fées (Neuchâtel). — Rittener, T.
Cotentin. *See* Normandy.
Cotopaxi (Ecuador).—Reiss, W., &c.
Cotorniano (Tuscany).—Achiardi, G. d.'
Cotteswold Hills (Gloucester).—Buckman, S. S.
—— Sands.—Reynolds, S. H., &c.
Courland (Baltic Provinces).—Doss, B.
Couvinian.—Renier, A.
Cowcroft (Bucks).—Coomáraswámy, A. K.
Crag, Belgian.—Harmer, F. W.
——, East Anglian.—Harmer, F. W.; Jukes-Browne, A. J.; Monckton, H. W., &c.
Cramauchenia.—Ameghino, F.
Crania.—Brœgger, W. C., &c.; Clarke, J. M.; Wood, E.
Craspedochilus.—Brœgger, W. C., &c.
Craspedodon.—Bittner, A.
Crassatella.—Dainelli, G.; Deninger, K.; Quaas, A.; Ravn, J. P. J.; Sturm, F.; Wanner, J.
Crassatellites & *Crepidula.*—Ortmann, A. E.
Crassatellopsis.—Maurer, F.
Craterolampas.—Airaghi, C.
Creag-na-Caillich (Perth).—Macnair, P.
Crediton (Devon).—Ussher, W. A. E.
Creechbarrow (Dorset).—Hudleston, W. H.
Creniceras.—Loriol, P. de, &c.
Crenimargo.—Cossmann, M.
Crenipecten.—Weller, S.
Creodonta, Tertiary.—Matthew, W. D.
——. *See also* Mammalia.
Crespano (Venetia).—Oppenheim, P.
Creston (Colo.).—Lakes, A.
Cretaceous, Africa (S.). — Kilian, W.; Stromer, E.
——, Algeria.—Joleaud, A.
——, Alpes-Maritimes.—Guébhard, A.; Peron, A.
——, Angola.—Voit, F. W.
——, Antarctic.—Nordenskjœld, O., &c.
——, Antrim.—Welch, R.; Wright, J.
——, Argentina.—Ameghino, F.; Burckhardt, C.
——, Asia Minor.—Huntington, E.
——, Baltic.—Hennig, A.
——, Belgium.—Cornet, J.; Rutot, A.
——, Bohemia & Saxony.—Petrascheck, W.
——, Borneo.—Krause, P. G.; Vogel, F.
—— boulders, Denmark.—Madsen, V.
——, Brunswick. — Kloos, J.; Wollemann, A.
——, California.—Hershey, O. H.
——, Canada.—Lambe, L. M.; Osborn, H. F.
——, Carpathians. — Liebus, A., &c.; Maas, O.
——, Dalmatia.—Kerner, F. von; Kornhuber, A.; Schubert, R. J.
——, Denmark. — Grœnwall, K. A.; Ravn, J. P. J.
——, Devon.—Jukes-Browne, A. J.
——, Dorset & Hants.—Reid, C.; Sherborn, C. D.
——, Egypt. — Ball, J.; Quaas, A.; Wanner, J.
——, France. *See* Languedoc, &c.
——, Galicia.—Friedberg, W.; Grzybowski, J.
——, Goritz.—Redlich, K. A.
——, Hanover.—Hoyer, —; Menzel, H.; Mueller, G.; Wollemann, A.

Cretaceous, Harz.—Brandes, G.
——, Hungary.—Schafarzik, F.
——, Italy.—Alessandri, G. de; Bœhm, G.; Dainelli, G.; Longhi, P.; Lotti, B.
——, Languedoc.—Grossouvre, A. de; Pellat, E.; Sayn, G., &c.
——, Lincolnshire.—Hill, W.
——, Lippe.—Elbert, J.
——, London Basin.—Whitaker, W.
——, Louisiana.—Adams, G. I.
——, Maryland & New York.—Ries, H.
——, Molucca Is.—Bœhm, G.
——, Montana.—Douglass, E.
——, Moravia.—Remeš, M.
——, Nebraska.—Fisher, C. A.
——, Netherlands.—Lambert, J.
——, Normandy.—Thevenin, A.
——, Oregon.—Merriam, J. C.
——, Patagonia.—Ameghino, F.; Stanton, T. W.
——, Picardy.—Gosselet, J.; Leriche, M.
——, Portugal.—Choffat, P.
——, Provence.—Michalet, A.
——, Prussia (W.).—Jentzsch, A.
——, Pyrenees.—Bresson, A.
——, Rumania.—Pâquier, V.
——, Russia.—Broili, F.; Egger, J. G.; Krasnopolski, A.; Rehbinder, B.; Yakovlev, N.
——, Salt Range.—Seeley, H. G.
——, Silesia.—Sturm, F.; Volz, W.
——, Sussex.—Macpherson, W.
——, Texas, &c.—Adams, G. I.; Hill, R. T.
——, Tunis.—Joleaud, A.
——, Turkestan.—Bœhm, J.
——, Vorarlberg.—Lorenz, T.
——, Washington.—Landes, H.
——, Yonne.—Valette, A.
——. *See also* Chalk, Foraminifera, &c.
Crete (I. of).—Cayeux, L.
Creuse, La (Haute-Saône).—Launay, L. de.
Crewe (Cheshire).—Edwards, W.
Crimea (S. Russia).—Andrusov, N.; Broili, F.; Danilov, E.; Egger, J. G.; Pantocsek, J.; Vernadski, V. S., &c.; Zemiatčenski, P.
Crinoidea, Carboniferous.—Klem, M.; Rowley, R. R.
——, Cretaceous.—Jesup, M. K.; Jukes-Browne, A. J.; Quaas, A.; Springer, F.
——, Devonian.—Follmann, O.; Œhlert, D. P.
——, Jurassic.—Remeš, M.
——, Silurian.—Schuchert, C.; Springer, F.; Weller, S.
Crioceras.—Elbert, J.; Hoyer, —.
Cripple Creek (Colo.).—Goldsmith, E.; Lakes, A.; Yunge, W.
Cristellaria.—Chapman, F.; Friedberg, W.; Procházka, V. J.; Schubert, R. J.
Cristo, Mte. (Wash.).—Winchell, N. H.
Croatia.—Gorjanovič-Kramberger, K.; Klaatsch, H.; Stefani, C. de, &c.
Crocodiles, Tertiary.—Redlich, K. A.
Crocoite.—Van Name, R. G.
Crocq, J. *See* Mourlon, M.
Croft (Leicester).—Rœchling, H. A., &c.
Cromer (Norfolk).—Harmer, F. W.; Longe, F. D.
Cromerian.—Harmer, F. W.
Crotalocrinus.—Weller, S.
Crow's-Nest Coalfield (B.C.).—Bell, R., &c.; Prior, E. G.; Robertson, W. F.
Croydon (Surrey).—Robarts, N. F.
Crumlin (Co. Antrim).—Cole, G. A. J.; Fletcher, L.; Milligan, W. H., &c.
Crupet intermittent spring (Namur).—Rabozée, H.; Rahir, E.
Crustacea, Cambrian.—Grœnwall, K. A.; Groom, T. T.; Jones, T. R.; Matthew, G. F.; Moberg, J. C.; Reed, F. R. C.; Woodward, H.
——, Carboniferous.—Allen, H. A.; Beecher, C. E.; Woodward, H.
——, Cretaceous.—Sturm, F.
——, Devonian.—Beecher, C. E.; Clarke, J. M.; Coomáraswámy, E. M.; Maurer, F.; Œhlert, D. P.; Peach, B. N.; Reed, F. R. C.
——, Jurassic.—Haizmann, W.
——, Silurian.—Allen, H. A.; Holm, G., &c.; Jækel, O.; Kruft, L.; Moberg, J. C.; Peach, B. N.; Reed, F. R. C.; Ruedemann, R.; Schuchert, C.
——, Tertiary.—Hall, T. S.; Ortmann, A. E.
——. *See also* Trilobites, Ostracoda, &c.
Cruziana.—Holm, G., &c.
Cryolite.—Ussing, N. V.; Weber, H. A.
Cryphæus.—Drevermann, F.; Œhlert, D. P.
Cryptænia.—Schlosser, M.
Cryptodon.—Stefani, C. de.
Cryptomactra.—Andrusov, N.
Cryptonella.—Clarke, J. M.
Cryptopithecus.—Schlosser, M.; Wittich, E.
Crystalline limestones, Ceylon, &c.—Callaway, C.; Coomáraswámy, A. K.
—— ——. *See also* Limestones.
—— schists, mapping of.—Hobbs, W. H.
—— ——, Urals.—Duparc, L., &c.
—— ——. *See also* Schists, Schistosity, &c.
Crystallization, order of mineral.—Weinschenk, E.
Crystallography.—Beckenkamp, J.; Bruhns, W.; Buttgenbach, H.; Cesàro, G.; Cornu, A.; Dœlter, C.; Fedorov, E. von; Gaubert, P.; Geipel, G.; Goldschmidt, V.; Gonnard, F.; Goodchild, J. G.; Hauswaldt, H.; Hilton, H.; Hlawatsch, C.; Panebianco, G.; Panebianco, R.; Panichi, U.; Penfield, S. L.; Rinne, F.; Smolař, G.; Viola, C.
——. *See also* Mineralogy.

Crystals, axes of.—Cornu, A.; Fedorov, E. von.
——, Belgian soils with.—Buttgenbach, H.
——, birefringence.—Hauswaldt, H.
——, classification. — Panebianco, R.; Wallerant, F.
——, cleavage.—Friedel, G.; Sollas, W. J.; Viola, C.
——, etched figures.—Bœggild, O. B.; Buttgenbach, H.; Muehlhauser, A.; Sommerfeldt, E.
——, malformation.—Goodchild, J. G.
——, structure.—Barlow, W.; Fedorov, E. von; Sollas, W. J.; Sommerfeldt, E.
——, symmetry. — Beckenkamp, J.; Hilton, H.; Viola, C.; Woolnough, W. G.
——, twinning of.—Bœckh, H.; Johnsen, A.; Viola, C.
——, water in.—Achiardi, A. d'.
Csata (Hungary).—Hornusitzky, H.
Csetrás Mts. (Transylvania). — Goldschmidt, V., &c.
Csúz (Hungary),—Timkó, E.
Ctenacanthus.—Destinez, P.; Eastman, C. R.
Ctenobolbina & *Cybele.*— Ruedemann, R.
Ctenodonta.—Maurer, F.; Schuchert, C.
Ctenolates.—Woodward, A. S.
Ctenosaurus & *Cynognathus.*—Huene, F. von.
Ctenostreon.—Broili, F.; Newton, R. B.
Cuba (W.I.).—Birkinbine, J.; Gannett, H.; Hayes, C. W., &c.; Vaughan, T. W.
Cucullæa.—Ortmann, A. E.; Quaas, A.; Sturm, F.; Wanner, J.
Cucullella.—Maurer, F.
Cuillin Hills (Skye, I. of).—Harker, A.
Culm, England.—Teall, J. J. H., &c.; Ussher, W. A. E.; Woodward, H.
——, Harz.—Beushausen, Z.; Potonié, H.
——, Silesia.—Dathe, E.
Cultellus, *Cyamium*, & *Cylichna.* — Brœgger, W. C., &c.
Cumberland.—Arber, E. A. N.; Davison, C.; Harker, A.; Jukes-Browne, A. J.; Kendall, P. F.; Lee, J.; Reade, T. M., &c.; Seeley, H. G.
Cupressoxylon.—Pampaloni, L.
Curamba (Peru).—Olaechea, T.
Cvijič, J. *See* Peucker, K.
Cyanite.—Weber, H. A.
Cyathocrinus.—Rowley, R. R.; Weller, S.
Cyathophyllum. — Lebedev, N.; Macmahon, C. A.; Počta, P.
Cycadeoidea.—Fliche, P.
Cycadites.—Zeiller, R.
Cycads, fossil.—Darton, N. H.; Seward, A. C.
Cyclactinia.—Vinassa de Regny, P.
Cyclammina.—Grzybowski, J.; Schubert, R. J.
Cyclaster & *Cyphosoma.*—Oppenheim, P.
Cyclolobus.—Frech, F.
Cyclostigma.—Potonié, H.
Cyclostoma.—Pallary, P.
Cyclotrypa.—Condra, C. B.
Cygnet, Port (Tasm.).—Twelvetrees, W. H.
Cylindrodon.—Douglass, E.
Cylindrophyllum.—Simpson, G. B.
Cymbalopora.—Chapman, F.
Cymbella.—Ries, H.
Cymbium.—Quaas, A.
Cymbospondylus.—Merriam, J. C.
Cymodocea.—Andrusov, N.
Cynodictis.—Matthew, W. D.; Schlosser, M.
Cynodon.—Schlosser, M.
Cyperites.—Engelhardt, H.
Cyphaspis.—Clarke, J. M.; Ruedemann, R.
Cyphocrinus.—Weller, S.
Cypræa.—Quaas, A.; Ravn, J. P. J.
Cypricardella.—Maurer, F.
Cypricardia. — Nœtling, F.; Quaas, A.
Cypricardinia.—Clarke, J. M.; Œhlert, D. P.; Weller, S.
Cyprina.—Brœgger, W. C., &c.; Sturm, F.
Cyprus.—Major, C. I. F.
Cyrena.—Choffat, P.; Cossmann, M.; Dainelli, G.
Cyrtina.—Clarke, J. M.; Œhlert, D. P.; Ortmann, A. E.; Weller, S.
Cyrtoceras.—Schuchert, C.; Weller, S.
Cyrtocrinus.—Remeš, M.
Cyrtodelphis.—Dal Piaz, G.
Cyrtodonta.—Drevermann, F.; Schuchert, C.
Cyrtolites.—Clarke, J. M.
Cyrtospira.—Ruedemann, R.
Cyrtostropha.—Donald, J.
Cystiphyllum.—Počta, P.
Cystodictya.—Condra, C. B.
Cythere.—Capeder, G.; Chapman, F.
Cytherea.—Quaas, A.
Cytherella.—Chapman, F.; Œhlert, D. P.
Cytheridea.—Capeder, G.; Procházka V. J.
Cytherideis.—Chapman, F.
Cytheropteron.—Capeder, G.
Czekanowskia.—Krasser, F.

Dacite.—Geikie, Sir A.; Gregory, J.W.; Leonhard, R.
Dacosaurus.—Fraas, E.; Sauvage, H. E.
Dactylotheca.—Arcangeli, G.
Dæmonhelix.—Elbert, J.
Daghestan (Russia).—Bogdanovich, K.; Golubiatnikov, D. V.; Sokolov, N.
Dakota (U.S.A.). — Darton, N. H.; Fraas, E.; Hatcher, J. B.; Hovey, E. O.; Jaggar, T. A., Jun.
Dalles, Minnesota, &c.—Hall, C. W.; Upham, W.
Dalmanites.—Clarke, J. M.; Holm, G., &c.; Schuchert, C.

Dalmatia (Austria). — Dainelli, G.; Kerner, F. von; Kornhuber, A.; Martelli, A.; Schubert, R. J.; Stefani, C. de, &c.; Waagen, L.
Dalradian.—Flett, J. S.; Horne, J.
Danæopsis.—Krasser, F.
Dandot (Salt Range).—Clark, R. W.
Danube R.—Graber, H. V.; Pálfy, M. von.
Daonella.—Bittner, A.
Dar-es-Salâm (Boma).—Wolff, W.
Darjíling (Bengal).—Parkinson, J.
Darlington (Tasmania).—Johnston, R. M.
Darmstadt (Hesse). — Chelius, C.; Klemm, G.; Kueppers, E.
Dartmoor (Devon).—Jukes-Browne, A. J.; Lowe, H. J.
DARWIN, CHARLES. *See* Hunt, A. R.
Darwin Mt. (Tasm.).—Twelvetrees, W. H.
Dauphiné (France). — Joukovski, E.; Kilian, W., &c.; Lory, P.; Martin, D.; Michel-Lévy, A., &c.; Muller, —; Sayn, G.; Termier, P.
DAWSON, G. M. *See* Ami, H. M.; Harrington, B. J.; Teall, J. J. H.
DAWSON, Sir J. W. *See* Adams, F. D.; Ami, H. M.
Dawson R. (Queensl.).—Dunstan, B.; Shirley, J.
Daylesford (Victoria).—Hart, T. S.
Dead-ground, Campine coal-basin. — Forir, H.
Dean, Forest of (Gloucester).—Binks, J. C.
Dechenia.—Potonié, H.
Deep-sea deposits. *See* Oceanic.
Deer, Irish extinct Red. — Barrett-Hamilton, G. E. H.
Degonia.—Roth, S.
Deister (Harz).—Wunstorf, W.
Dekayella, *Dekayia*.—Cumings, E. R.
Delagoa Bay (S. Africa).—Kilian, W.
Dellach (Carinthia).—Sussmann, O.
Delmar (Nevada).—Emmons, S. F.
Delphinites.—Sayn, G.
Delphinula.—Deninger, K.; Quaas, A.; Wollemann, A.
Delphinus.—Ugolini, R.
Delta, Mississippi.—Upham, W.
DELVAUX, E. *See* Hennequin, E., &c.; Mourlon, M.
Démer (Belgian Limburg). — Van den Broeck, E.
Demerara R. (British Guiana).—Gray, F. J.; Harrison, J. B.
Dendrophyra.—Friedberg, W.
Denmark.—Davis, P.; Grœnwall, K. A.; Harder, P.; Hartz, N., &c.; Hintze, V.; Madsen, V.; Milthers, V.; Œstrup, E.; Ravn, J. P. J.; Steenstrup, K. J. V.; Ussing, N. V.; Wesenberg-Lund, C.
Dentalium. — Ortmann, A. E.; Procházka, V. J.; Quaas, A.; Stanton, T. W.; Wanner, J.; Weller, S.
Denudation, past & present.—Edwards, T.
——. *See also* Erosion.
Deposition, mechanism of. — Blake, J. F.; Feret, R.; Fiévez, C. E.
——, rate of.—Keyes, C. R.
Derbend (Daghestan).—Sokolov, N.
Derbyshire.—Barnes, J.; Garson, J. G., &c.; Jukes-Browne, A. J.
Desert, Asia (Central). — Hedin, Sv.; Ochsenius, C.
——, Arabian & Saharan.—Abel, O.
——, E. Egyptian.—Barron, T., &c.
——, Gobi.—Futterer, K.
——, origin of.—Ochsenius, C.
Desmoceras.—Liebus, A., &c.; Sarasin, C., &c.
Desmophyllum.—Gane, H. S.
Despoto Dagh (Turkey).—Cvijič, J.
Deuterosaurus. — Huene, F. von; Nopčsa, F., jun.
Deuterotherium.—Ameghino, F.
Devil Hill (S. Dakota).—Barbour, E. H.
Devon.—Collins, J. H.; Coomáraswámy, E. M.; Hunt, A. R.; Jukes-Browne, A. J.; Lowe, H. J.; Mill, H. R.; Rœsler, H.; Thomas, H. H.; Ussher, W. A. E.; Watson, J. A.; Woodward, H.; Woodward, H. B.
Devonian, Appalachian.—Weller, S.
——, Belgium.—Bourgeat, —; Forir, H.; Questienne, P.; Renier, A.
——, Bohemia.—Schubert, R. J., &c.
——, Canada.—Ami, H. M.; Grant, C. C.; Matthew, G. F.
——, China.—Martelli, A.
——, Colorado.—Hay, O. P.
——, Cornwall.—Fox, H.
——, Devon.—Coomáraswámy, E. M.
——, France.—Bergeron, J., &c.; Lebesconte, P.
——, Harz. — Holzapfel, E.; Potonié, H.
——, Hesse.—Denckmann, A.
——, Hindu Khoosh. — Macmahon, C. A., &c.
——, Maryland.—Willis, B.
——, Namur.—Soreil, G.
——, New York State.—Clarke, J. M.; Wood, G.
——, Ohio.—Prosser, C. S.
——, Pennsylvania.—Beecher, C. E.
—— phosphates, Germany.—Kruft, L.
——, Rhenish-Prussia. — Drevermann, F.; Maurer, F.
——, Russia.—Krasnopolski, A.; Lebedev, N.
——, Sahara.—Flamand, G. B. M.
——, Siberia. — Kayser, E.; Lebedev, N.; Peetz, H. von.
——, Silesia.—Dathe, E.
——, Spain.—Œhlert, D. P.
——, Thuringia.—Guerich, G.
——, Westphalia. — Denckmann, A.; Holzapfel, E.
——, Wiesbaden.—Dœrmer, L.; Drevermann, F.

Devono-Silurian boundary, N. America. —Williams, H. S.
De Wael, N. C. L. *See* Van Ertborn, O.
Dew-ponds.—Miall, L. C.
Dexiobia.—Weller, S.
Dezzo R. (Lombardy).—Tommasi, A.
Diabase, coal in. — Petrascheck, W.; Slavik, F.
——, Finland.—Frosterus, C.
——, Massachusetts.—Emerson, B. K.
——, Minnesota.—Hall, C. W.
——, Rumania.—Nicolau, T.
——, Saxony.—Reinisch, R.
——, Urals.—Duparc, L., &c.
——, Wiesbaden.—Dœrmer, L.
——, Whin Sill.—Anon., 67; Lee, J.
——. *See also* Igneous rocks.
Diablerets, Les (Savoy).—Haug, E.
Diamonds, Africa (S.), & origin of.—Heneage, E. F.; Sabatini, V.
——, Brazil.—Anon., 50.
——, British Guiana. — Hargreaves, T. S., &c.
——, cleavage.—Sollas, W. J.
——, India.—Grundy, J.
——, New South Wales.—Card, G. W.; Maclachlan, D. C.; Pittman, E. F.
Diaphana.—Brœgger, W. C., &c.
Diaphorostoma.—Clarke, J. M.
Diastoma.—Dainelli, G.
Diatoma.—Ries, H.
Diatomaceæ, Carboniferous. — Renault, B.
——, Quaternary.—Ries, H.
Diatomaceous deposits, Denmark. — Œstrup, E.; Wesenberg-Lund, C.
—— ——, Iceland.—Œstrup, E.
—— ——, Ireland.—Phipson, T. L.
—— ——, Kerch.—Pantocsek, J.
—— ——, Victoria (Austral.). — Dun, W. S.
Dicellocephalina.—Moberg, J. C.
Diceras.—Frech, F.
Diceratherium, Dichobune, Dicrocerus, & *Dinocyon.*—Schlosser, M.
Dichograptus.—Elles, G. L., &c.
Dictyoconites.—Mojsisovics, E. von.
Dictyonema.—Ami, H. M.; Grant, C. C.
—— -shales.—Groom, T. T.
Dictyophyllum.—Roth, S., &c.
Dicyclina.—Egger, J. G.
Dicynodon.—Huene, F. von.
Didolodus & *Dilestes.*—Ameghino, F.
Didymograptus.—Holm, G., &c.; Moberg, J. C.
Dielasma.—Drevermann, F.; Dun, W. S.; Weller, S.
Diersberg (Baden).—Sauer, A.
Diestian.—Harmer, F. W.; Van den Broeck, E.; Van Ertborn, O.
Diglum Creek (Queensl.).—Dunstan, B.
Dihoplus.—Seguenza, L.
Dill R. (Germany).—Kayser, E.
Dillenberg (Wiesbaden).—Dœrmer, L.
Dillheim (Hesse).—Kayser, E.
Diluvial. *See* Quaternary & Tertiary.
Dimerostephanos.—Ameghino, F.
Dimya.—Cossmann, M.; Quaas, A.
Dimyodon.—Grœnwall, K. A.
Dimyopsis.—Bittner, A.
Dinantian.—Launay, L. de.
Dinaric Alps. *See* Alps.
Dinarites.—Tommasi, A.
Dinictis.—Matthew, W. D.
Dinoga (N.S.W.).—Pittman, E. F.
Dinosauria, classification of.—Nopčsa, F., Jun.
——, Cretaceous.—Beecher, C. E.
——, Jurassic. — Granger, W., &c.; Nopčsa, F., Jun.; Riggs, E. S.; Skiff, F. J. V.
Dinotherium.—Ameghino, F.; Schlosser, M.
Dioplodon.—Roth, S.; Ugolini, R.
Diopside.—Turner, H. W.
Diorite.—Bergt, W.; Bœckh, H.; Cole, G. A. J.; Duparc, L.; Ippen, J. A.; Park, J.; Somervail, A.; Twelvetrees, W. H.
——. *See also* Igneous rocks.
Diospyros.—Engelhardt, H.; Hill, R. T.
Diphyodus.—Lambe, L. M.
Diplobune & *Dipoides.*—Schlosser, M.
Diplocaulus.—Broili, F.
Diplocynodon.—Redlich, K. A.
Diplodocus.—Granger, W., &c.
Diplodonops & *Distylophorus.*—Ameghino, F.
Diplopodia.—Lambert, J.
Diplopora.—Lorenz, T.
Diplotesta.—Renault, B.
Dipteris.—Seward, A. C., &c.
Disco I. (Greenl.).—Steenstrup, K. J. V.
Discoflustrella.—Procházka, V. J.
Discorbina.—Chapman, F.; Friedberg, W.; Reade, T. M., &c.
Dissacus.—Wortman, J. L.
Distefanaster & *Ditremaster.* — Checchia, G.
Ditœcholasma.—Simpson, G. B.
Ditroite.—Bonney, T. G.; Lacroix, A.
Dittmarite.—Macivor, R. W. E.
Dittweiler (Rhenish Bavaria).—Leppla, A.
Divining, water-. *See* Water-divining.
Dobratsch (Carinthia).—Geyer, G.
Dobrudscha (Rumania).—Pâquier, V.
Dodekaceria.—Rovereto, G.
Dog, Quaternary.—Studer, T.
Dogger. *See* Jurassic.
Dolerite, Fife.—Geikie, Sir A.
——, Queensland.—Andrews, E. C.
Dolerophane.—Strandmark, J. E.
Dolichites & *Dothidea.*—Engelhardt, H.
Doliovertebra.—Huene, F. von.
Dolium. — Choffat, P.; Ortmann, A. E.
Dolomite, analyses.—Arsandaux, H.
——, Ceylon.—Schiffer, E. C.
——, crystallization. — Eisenhuth, K.; Johnsen, A.
——, Liége.—Destinez, P.

Dolomite, Salzburg.—Crammer, H.
——, soils &.—Phipson, T. L.
——, Styria.—Freyn, R.
——, Tyrol.—Focke, F.
Dolomitic chalk, Dalmatia.—Schubert, R. J.
—— Conglomerate.—Bonney, T. G.
Dombes (Ain).—Preller, C. S. DuR.
Domeykite.—Kœnig, G. A.
Dominica (W.I.).—Spencer, J. W. W.
Donax.—Simionescŭ, J.
Don Cossacks, Prov. of (S. Russia).—Pavlov, A. V.
Donegal Co. (Ireland).—Kinahan, G. H.
Dora Riparia (Piedmont). — Colomba, L.
Dorcatherium, *Drepanodon*, & *Dryopithecus*.—Schlosser, M.
Dordogne (France).—Anon., 54; Capitan, L.; Harlé, É.; Koken, E.; Michel-Lévy, A., &c.; Moissan, H.; Rivière, E.
Dordonian.—Dainelli, G.
Dore, Mt. (Auvergne).—Cullis, C. G., &c.
Dorocidaris.—Airaghi, C.
Dorset.—Darwin, H.; Hudleston, W. H.; Jukes-Browne, A. J.; Reid, C.; Thomas, H. H.; Woodward, H. B.
—— (Tasm.).—Twelvetrees, W. H.
Dorycordaites.—Kidston, R.
Dorypyge.—Grœnwall, K. A.
Dosinia.—Brœgger, W. C., &c.; Burckhardt, C.; Ortmann, A. E.
Douai (Nord).—Gosselet, J.
Doubs (France).—Fournier, E.
Doullens (Somme).—Gosselet, J.
Douvillina.—Œhlert, D. P.
Dove R. (Tasm.).—Waller, G. A.
Down, Co. (Ireland).—Phillips, J. St. J.; Præger, R. Ll., &c.; Welch, R.
Drave R. (Carinthia).—Sussmann, O.
Drawings, palæolithic cave-. — Anon., 54; Capitan, L.; Koken, E.; Moissan, H.; Rivière, É.
Dreissensia.—Andrusov, N.
Drenthe (Netherlands).—Dubois, E.
Drepanaspis.—Traquair, R. H.
Drift, British Isles. — Edwards, W.; Longe, F. D.; Reid, C.; Teall, J. J. H.
——, Germany (N.).—Geinitz, E.
——, Iowa, &c.—Calvin, S.; Hann, F.; Shimek, B.
——, sea-coast.—Hunt, A. R.; Wheeler, W. H.
——. *See also* Glacial Deposits, Lœss, &c.
Drillia.—Cossmann, M.; Ortmann, A. E.
Drimys.—Deane, H.
Drôme (France).—Kilian, W.
Drumlins. *See* Moraines.
Dryas.—Hartz, N.
Dryopteris.—Turner, H. W.
Duaringa (Queensl.).—Shirley, J.
Dublin, Co. (Ireland). — Hinch, J. de W.; Teall, J. J. H.
Dufrénoysite.—Solly, R. H.
Dumfriesshire (Scotl.).—Dron, R. W.
Dumortieria.—Hoyer, —.
Dumortierite.—Ford, W. D.; Weber, H. A.
Dundas (Tasm.).—Twelvetrees, W. H.; Waller, G. A.
Dundas (W. Austral.).—King, H. S.
Dunedin (N.Z.).—Park, J.
Dunes, Asia (Central).—Hedin, Sv.
——, Belgium.—Abel, O.; Andrimont, R. d'.
——, Chile.—Albert, F.
——, formation of.—Ochsenius, C.
——, France.—Engell, M. C.
——, Gobi Desert.—Futterer, K.
——, Hungary.—Cholnoki, E. von.
——, Karachi.—Griesbach, C. L.
——, Sahara.—King, W. J. H.
——, Victoria (Austral.).—Grayson, H. J.
Dunite.—Duparc, L., &c.
Dunk I. (Queensl.).—Andrews, E. C.
Durance Valley (Dauphiné).—Martin, D.
Durango (Mexico).—Johnson, D. W.
Dürbachite.—Milch, L.
Durham. — Abbott, G.; Anon., 67; Brown, M. W., &c.; Dwerryhouse, A. R.; Jukes-Browne, A. J.; Lee, J.
Durnal tunnel (Namur).—Soreil, G.
Dürrheim (Baden).—Sauer, A.
Düsseldorf (Rh.-Prussia). — Elsden, J. V., &c.
Dust, European & N. African fall, March 1901.—Hellmann, G., &c.
——, mineral constituents of.—Clerici, E.
——, volcanic.—Anon., 40; Backhouse, F. W.; Bonney, T. G.; Clerici, E.; Flett, J. S.; Fry, Sir E.; Lacroix, A.; Lockyer, W. J. S.; Mill, H. R.; Morris, D.; Newlands, B. E. R.; Reid, C.; Schafarzik, F.; Souza-Brandão, V. de; Teall, J. J. H.; Van den Broeck, E.
——, ——. *See also* Martinique, &c.
Dutch East Indies. — Buecking, H.; Koperberg, M.; Liebenam, W.; Lucas, W.; Martin, K.; Molengraaff, G. A. F.; Verbeek, R. D. M.; Wichmann, A.
——. *See also* Celebes, Sumatra, &c.
—— Guiana.—Bergt, W.
—— West Indies.—Jongh, D. de, Jun.
Dwyka Conglomerates.—Bastin, E. S.; Gibson, W.
Dynamometamorphism. — Weinschenk, E.
Dysart (Fife).—Kirkby, R.
Dysodile, Sicily.—Pampaloni, L.

Earth, age of.—Ackroyd, A.
—— -crust folding.—Linck, G.
—— -crust, gravity &.—Denison, F. N.; Lœwinson-Lessing, F.
—— ——, erosion &.—Edwards, T.
—— ——, mountains.—Meunier, St.
—— ——, volcanoes &.—Grosser, —.

Earth, figure of. — Bartrum, C. O.; Kreichgauer, D.; Reibisch, P.

—— magnetism. — Meyer, G.; Raulin, V.

——, man &.—Lobley, J. L.

——, metals, rare. — Dennis, L. M.; Metzger, F. J.

——, origin of.—Jervis, W. P.

—— -pillars, Fochabers.—Hinxman, L. W., &c.

——-——, Lombardy.—Mœbus, B.

—— sculpture.—Anon., 37; Avebury, Lord; Frosterus, B.; Geikie, J.; Geikie, Sir A.

——, surface-waves.—Cornish, V., &c.; Helmert, F. R.

——. *See also* Geology, &c.

Earthquake Congress. *See* Congress.

—— stations, Germany.—Gerland, G.

—— waves.—Schlueter, W.

Earthquakes, Assam. — Montessus de Ballore, F. de; Oldham, R. D.

——, Austria-Hungary. — Anon., 56; Hœrnes, R.; Milne, J.; Mojsisovics, E. von.

——, British.—Davison, C.

——, Cape Colony.—Stewart, C.

——, China.—Moidrey, — de.

——, Denmark.—Hintze, V.

——, England (S.), France, & India.—Montessus de Ballore, F. de.

——, Finland.—Moberg, K. A.

——, fire-damp &.—Van den Broeck, E.

——, Germany.—Milne, J.

——, Greece.— Cristomanos, —; Eginitis, D.

——, Guatemala.—Rockstroh, E.; Sapper, K.

——, Hohenzollern & Würtemberg.—Schmidt, A.

——, Hungary.—Schafarzik, F.

——, Italy.—Baldacci, L., &c.; Cacciamali, G. B.; Guzzanti, C.; Volta, L.

——, Japan.—Milne, J.; Omori, F.

——, Missouri.—Broadhead, G. C.

——, New Zealand.—Mackay, A.

——, Norway.—Kolderup, C.

—— origin, &c. of. — Grablovitz, G.; Milne, J.

——, Saxony.—Credner, H.

——, Sweden.—Moberg, K. A.; Svedmark, E.

——, Transcaucasus.—Lysakovski, C.

——, Turkestan.—Oldham, R. D.

——, volcanic eruptions &.—Espin, T. E.; Moidrey, — de.

——, West Indies.—Anon., 45.

——. *See also* Seismology, &c.

Earths, rare.—Dennis, L. M.; Metzger, F. J.

East Indies. *See* Krause, P. G.

——. *See also* Dutch East Indies; New Caledonia, &c.

Eatonia.—Drevermann, F.

Eaux-Chaudes (Basses-Pyrénées).—Bresson, A.

Ebersdorf (Silesia).—Dathe, E.; Frech, F.

Ebersdorf (Thuringia).—Guerich, G.

Ecaussine (Hainault).—Rutot, A.

Ecca Beds.—Gibson, W.

Eccyliopterus.—Ruedemann, R.

Echigo (Japan).—Kochibe, T.

Echinanthus & *Echinus.*—Airaghi, C.; Oppenheim, P.

Echinocardium, *Echinoneus*, & *Echinotangus.*—Oppenheim, P.

Echinocaris.—Beecher, C. E.; Coomáraswámy, E. M.

Echinocyanus.—Airaghi, C.

Echinoidea, Carboniferous.—Allen, H. A.

——, Cretaceous. — Broili, F.; Burckhardt, C.; Elbert, J.; Gauthier, V.; Grœnwall, K. A.; Hill, R. T.; Lambert, J.; Loriol, P. de; Michalet, A.; Quaas, A.; Reid, C.; Schlueter, C.; Wanner, J.

——, Devonian.—Clarke, J. M.

——, Silurian.—Allen, H. A.

——, Tertiary.—Airaghi, C.; Checchia, G.; Fourtau, R.; Hall, T. S.; Lambert, J.; Loriol, P. de; Oppenheim, P.; Ortmann, A. E.; Toula, F.

Echinolampas.—Airaghi, C.; Lambert, J.; Loriol, P. de; Oppenheim, P.

Echinometra.—Loriol, P. de.

Echinopedina.—Lambert, J.

Echinosphærites & *Endoceras.*—Holm G., &c.

Eclogite.—Card, G. W.; Franchi, S.; Joukovski, E.; Piolti, G.

Ectocentrites.—Fucini, A.

Ectoconus.—Gaudry, A.

Ectomaria.—Donald, J.

Ecuador (S. Am.). — Reiss, W., &c. Stuebel, A.

Edaphophyllum & *Enterolasma.* — Simpson, G. B.

Edeghem (Antwerp). — Van Ertborn, O.

Eden Valley (Lake District).—Kendall, P. F.

Edestus & *Elonichthys.*—Eastman, C. R.

Edinburgh (Scotland). — Martin, R.; Richardson, R.

Edithburgh (S. Austral.).—Basedow, H.

Edmondia.—Weller, S.

Edriocrinus.—Clarke, J. M.

Egertonia.—Priem, F.

Eggegebirge (Germany).—Stille, H.

Egypt.—Andrews, C. W., &c.; Anon., 53; Ball, J.; Barron, T., &c.; Beadnell, H. J. L.; Chapman, F.; Fourtau, R.; Gauthier, V.; Liebenam, W.; Lortet, —, &c.; Lucas, A.; Neumann, O.; Oppenheim, P.; Quaas, A.; Stromer, E.; Wanner, J.

Ehringshausen (Hesse).—Kayser, E.

Eibiswald (Styria).—Dreger, J.

Eifel (Rh.-Prussia).—Drevermann, F.; Henrich, F.

Einbeck (Hanover).—Schmidt, M.

Eisleben (Merseburg). — Zimmermann, E.

Ekaterinoslav(Russia).—Golubiatnikov, D. V.; Head, A. P.; Morozevich, I.; Vosnessenski, V.

Elæodendron.—Engelhardt, H.

Elæolite.—Morozevich, I.

Elatides.—Krasser, F.

Elephas, Finland.—Rosberg, J. E.

——, Italy.—Portis, A.; Ricci, A.

——, Silesia.—Volz, W.; Wuest, E.

Eletz (Orel).—Krasnopolski, A.

Elgin (Scotland).—Hinxman, L. W., &c.

Elgin Sandstone.—Mackie, W.

Elisabetpol Gov. (Transcaucasus). — Ermisch, —.

Elk, fossil, Dordogne.—Harlé, É.

——, Thames Valley.—Newton, E. T.

Ellice Is. (Pacific).—Chapman, F.

Ellipsoglandulina & *Ellipsoidina.*—Silvestri, A.

Elmstead (Kent).—Holmes, T. V., &c.; Osman, C. W.

El Paso. *See* Paso.

Elymella.—Weller, S.

Elymocaris.—Beecher, C. E.

Emarginula. — Brœgger, W. C., &c. Ravn, J. P. J.

Emery, Carolina, Georgia, &c.—Pratt, J. H.

——, New York State.—Nevius, J. N.

——. *See also* Corundum, &c.

Emilia (Italy).—Clerici, E.; Toldo, G.

Emmen Valley (Berne).—Antenen, F.; Kissling, E.

Empelde (Hanover).—Hoyer, —.

Enachino R. (Siberia).—Yachevski, L.

Enallaster.—Hill, R. T.; Lambert, J.

Enantiostreon.—Bittner, A.

Encyonema.—Ries, H.

Enderby (Leicester).—Rœchling, H. A., &c.

Engadine (Grisons).—Rothpletz, A.

Engihoul (Liége).—Fraipont, J.

England, Geological Survey. *See* Geological Surveys.

——, scenery of.—Anon., 55; Avebury, Lord; Mackinder, H. J.

—— (S.E.).—Lohest, M.; Monckton, H. W.; Stainier, X.

——. *See also* Cornwall, Mines, Quaternary, &c.

Enfants, Grotte des (Alpes-Maritimes). —Verneau, R.

Englefield (Berks).—Monckton, H. W.

Enid (Oklahoma).—Haworth, E., &c.

Enhydrictis.—Major, C. I. F.

Eno (Finland).—Frosterus, B.

Entelodon.—Schlosser, M.

Entlebuch (Bern).—Kissling, E.

Entomostraca. *See* Ostracoda.

Entraygues (Aveyron).—Arsandaux, H.

Eocene, Algeria.—Blayac, J.; Pervinquière, L.

——, Charente.—Douvillé. H.

—— coal, Hungary.—Telegd, L. R. von.

——, Dalmatia.—Dainelli, G.

——, Egypt.—Beadnell, H. J. L.

——, London Basin.—Whitaker, W.

——, Paris Basin.—Cossmann, M.

Eocene, Turkestan.—Bœhm, J.

——, Tuscany.—Pampaloni, L.

——, Victoria (Austral.). — Thiele, E. O., &c.

——. *See* Tertiary, &c.

Eoctodon, *Eohyrax*, & *Eolicaprium.*—Ameghino, F.

Eolithic implements.—Bennett, F. J.; Harrison, E. R.; Jervis, W. P.; Jones, T. R.

Eomannodon & *Eosteiromys.* — Ameghino, F.

Eophrynus.—Pocock, R. I.

Eophyton.—Holm, G., &c.

Eoplychætus.—Ruedemann, R.

Eosiren.—Andrews, C. W.

Eotragulus.—Thevenin, A.

Eparchæan.—Lawson, A. C.

Epiaster.—Hill, R. T.; Lambert, J.

Epidiorite, Fife.—Geikie, Sir A.

Epidote.—Neuwirth, V.; Palache, C. Pfeil, K.; Zambonini, F.

Epithema.—Ries, H.

Epithenia.—Pantocsek, J.

Epitornaceras.—Frech, F.

Eppelsheim (Hesse).—Wittich, E.

Equipecten.—Woods, H.

Equisetum.—Gwynne-Vaughan, D. T.; Hill, R. T.

Equus.—Gidley, J. W.; Lydekker, R.; Macconnell, P.; Rivière, É.; Seeley, H. G.

Erato.—Quaas, A.

Erba (Lombardy).—Flores, E.

Erdély (Hungary).—Schafarzik, F.

Eretmocrinus.—Rowley, R. R.

Eridophyllum.—Simpson, G. B.

Eridotrypa.—Cumings, E. R.

Erie Co. (N.Y.).—Wood, E.

Erie, Lake (N. Am.). — Leverett, F.; Wood, E.

Eriphyla.—Sturm, F.

Ernici volcano (Prov. Rome).—Viola, C.

Erosion, æolian,—Brunhes, J.; Julien, G. I.

——, marine. — Monckton, H. W. Wheeler, W. H.

——, past & present.—Edwards, T.

——, river.—Ball, J.; Doss, B.; Hall, C. W.; Todd, J. E.; Wright, G. F.

——, subærial.—Monckton, H. W.

——. *See also* Weathering.

Erpetosuchus & *Eryops.*—Huene, F. von.

Erratic boulders, Bavaria.—Ammon, L. von.

—— ——, British Isles.—Kendall, P. F., &c.

—— ——, Nassau.—Kinkelin, F., &c.

—— ——, Switzerland. — Æberhardt, B.; Antenen, F.; Schardt, H.

——. *See also* Boulders, Glacial Deposits, &c.

—— sandstone-blocks. *See* Sarsens.

Eruptive rocks. *See* Igneous rocks.

Ervilia.—Simionescŭ, J.

Erycina.—Procházka, V. J.

Erythræa (N.E. Africa).—Achiardi, G. d'.
Erzgebirge (Transylvania).—Telegd, L. R. von.
Escasona.—Jones, T. R.; Matthew, G. F.
Esino (Lombardy).—Mariani, E.
Eskers. *See* Moraines.
Esmeralda Co. (Nev.).—Turner, H. W.
Esmeraldite.—Gaubert, P.
Esox.—Hartz, N.
Essequibo R. (British Guiana).—Gray, F. J.; Harrison, J. B.
Essex.—Harmer, F. W.
Essexite.—Hibsch, J. E.; Lacroix, A.; Romberg, J.
Essonite.—Emerson, B. K.
Esthonia (Baltic Prov.).—Schmidt, F.
Estonioceras.—Holm, G., &c.
Étaves (Aisne).—Gosselet, J.; Mercey, N. de.
Etcheminian.—Jones, T. R.; Matthew, G. F.
Eubœa I. (Greece).—Woodward, A. S.
Eucalamites.—Potonié, H.
Eucalyptocrinus, Eumetria, & Euphemus.—Weller, S.
Eucalyptus & Eugenia.—Engelhardt, H.
Eucyclus.—Cossmann, M.
Euganean Hills (Venetia).—Dal Piaz, G.; Zanolli, V.
Eugeniacrinus.—Remeš, M.
Eulima & Eulimella.—Brœgger, W. C., &c.
Euloma.—Holm, G., &c.
Eunothosaurus & Eurycervix.—Huene, F. von.
Eunotia.—Ries, H.
EUNSON, H. J. *See* Anon., 3.
Euomphalus.—Drevermann, F.; Sardeson, F. W.
Euphrates R. (Asia Minor).—Huntington, E.
Eure (France).—Michel-Lévy, A., &c.
Europe, dustfall of 1901.—Hellmann, G., &c.
——, international geological map of.—Beyschlag, F., &c.
——. *See* Austria, &c.
Eurychilena.—Ruedemann, R.
Eurymya.—Sardeson, F. W.
Euryochetus & Euthria.—Cossmann, M.
Eurystomus & Eutypotherium.—Roth, S.
Euspatangus.—Airaghi, C.; Oppenheim, P.
Eustylus.—Schlosser, M.
Evenlode R. (Oxon).—Anon., 45.
Evolution, geological changes &.—Frazer, P.; Grant, C. C.; Meunier, St.; Sollas, W. J.
——, palæontology &.—Gratacap, L. P.; Hutton, F. W.
——, plants &.—Potonié, H.; Scott, D. H.; Seward, A. C.; Westermaier, M.
Evreux (Eure).—Michel-Lévy, A., &c.
Exeter (Devon).—Ussher, W. A. E.
Exhibition, Brussels.—Van den Broeck, E., &c.
——, Buffalo.—Yunge, G.
——, Düsseldorf.—Elsden, J. V.
Exogyra.—Choffat, P.; Hill, R. T.; Quaas, A.; Rehbinder, B.; Reis, O. M.
Experimental geology.—Jaggar, T. A., Jun.
Eyzies, Les (Dordogne).—Harlé, E.

Fågelsang (Gotland).—Strandmark, J. E.
Fagus.—Cullis, C. G., &c.; Deane, H.
Faleme R. (Senegambia).—Hamy, T. E.
Falisolle (Liége).—Stainier, X.
Falmouth (Cornwall).—Hill, J. B.
Faltschauer (Tyrol).—Hammer, W.
Faröe Is.—Cole, G. A. J.; Post, H. von.
Farrell, Mt. (Tasm.).—Twelvetrees, W. H.
Fasciolaria.—Ravn, J. P. J.; Wanner, J.
Fassa (Tyrol).—Gordon, M. M. O.
Faujasina.—Fornasini, C.
Faults.—Forir, H.; Hobbs, W. H.
Faunas, distribution in time.—Hutton, F. W.; Williams, H. S.
Faunus.—Cossmann, M.
Favia.—Wanner, J.
Favosites.—Lebedev, N.; Macmahon, C. A., &c.; Počta, P.
Fayûm (Egypt).—Beadnell, H. J. L.; Lucas, A.
FEILITZEN, C. H. J. von. *See* Tolf, R.
Feistmantelia.—Zeiller, R.
Feistritz-Peggau (Styria).—Setz, W.
Felis.—Schlosser, M.
Fellin (Livonia).—Schmidt, F.
Felsite, Victoria (Austral.).—Mennell, F. P.
Felspars.—Franchi, S.; Kœnigsberger, J.; Lawson, A. C.; Neuwirth, V.; Rinne, F.; Riva, C.; Tertsch, —; Wuelfing, E. A.; Zalinski, E.
——, melting-points of.—Dœlter, C.
Fenestella & Fistulipora.—Condra, C. B.
Fenland soils.—Peacock, E. A. W.
Ferriby (Yorks).—Stather, J. W.
Ferussacia.—Pallary, P.
Ficus.—Cullis, C. G.; Shirley, J.
Fife (Scotland).—Dron, R. W.; Geikie, Sir A.; Kirkby, R.
Figeac (Lot).—Boule, M.
Filfila (Algeria).—Termier, P.
FILHOL, H. *See* Anon., 4; Rudler, F. W.
Filton (Gloucester).—Reynolds, S. H., &c.
Fimbria.—Choffat, P.
Finchampstead Ridges (Berks).—Jones, T. R.
Finistère (Britanny).—Barrois, C.; Kerforne, F.
Finland.—Bonsdorff, A.; Frosterus, B.; Hammarstrœm, R.; Moberg, K. A.; Ramsay, W., &c.; Rosberg, J. E.; Sarlin, E.; Sederholm, J. J.
Finmark (Norway).—Norman, A. M.

Finne Mts. (Prussia).—Michael, R.
'Fire-places,' Taubach.—Moller, H.
Firminy (Loire).—Friedel, G.
Fiscus.—Engelhardt, H.
Fishes, Carboniferous. — Destinez, P.; Eastman, C. R.; Peach, B. N.; Wellburn, E. D.; Woodward, A. S.
——, classification of fossil.—Zittel, K. A. von.
——, Cretaceous.—Hill, R. T.; Lambe, L. M.; Leriche, M.; Liebus, A., &c.; Quaas, A.; Stromer, E.; Sturm, F.; Wanner, J.; Woodward, A. S.
——, Devonian.—Dean, B.; Hay, O. P.; Peach, B. N.; Traquair, R. H.
——, Jurassic.—Remeš, M.; Sauvage, H. E.
——, N. American.—Hay, O. P.
——, Permian.—Frech, F.
——, Quaternary.—Hartz, N.; Munthe, H.
——, Silurian.—Hobbs, W. H.; Vaillant, L.
——, Tertiary.—Douglass, E.; Gemmellaro, G. G.; Leriche, M.; Merrill, G. P.; Priem, F.; Procházka, V. J.; Schubert, R. J.; Stefano, G. de; Turner, H. W.; Woodward, A. S.
——, Triassic.—Frech, F.; Hobbs, W. H.; Schellwien, E.; Strahan, A., &c.
Fissure-veins. *See* Ore-enrichment & Veins.
Fissurella.—Ortmann, A. E.
Fitzhead (Somerset).—Thomas, H. H.
Fitzroy I. (Queensl.).—Andrews, E. C.
Fivemile Rise (Tasm.).—Waller, G. A.
Fjellbacka (Gotland).—Svedmark, E.
Fjords, New Zealand.—Maclaren, J. M.
——, Norway.—Hull, E.
Flabellum.—Friedberg, W.
Flamanville (Normandy).—Becke, E.; Leclère, A.
Flaming, The (Brandenburg). — Keilhack, K.
Flanders (Belgium).—Rutot, A.; Van Ertborn, O.
Flegg Hundred (Norfolk). — Harmer, F. W.
Flemingites.—Frech, F.
Flint-deposits, Haldon Hill. — Jukes-Browne, A. J.
—— implements. *See* Implements.
——, origin of.—Hanssen, H.; Longe, F. D.; Maddock, H. E.
——, palæolithic man &.—Harroy, E.
——, Paris Basin.—Grossouvre, A. de; Rutot, A.
——, Texas.—Hill, R. T.
Flooded mine, Brüx.—Heurverges, R.
Flora. *See* Plants.
Florence (Tuscany).—Lotti, B.; Pampaloni, L.; Trabucco, G.
Florida (U.S.A.). — Parker, E. W.; Springer, F.
Fluorine, iron &.—Zalinski, E.
Fluorspar.—Parker, E. W.; Weber, H. A.
Flysch, Rhætian Alps.—Lorenz, T.
——, Rothliegende.—Bonney, T. G.
Fochabers (Elgin).—Hinxman, L. W., &c.
Fondo Riccio crater, Phlegræan Fields. —Manasse, E.
Font-de-Gaume (Dordogne). — Anon., 54; Capitan, L., &c.; Moissan, H.; Rivière, E.
Footprints, Tertiary.—Adams, G. I.
——, Triassic.—Blanckenhorn, M.; Lyman, B. S.; Woodward, A. S.
Foraminifera, Cretaceous. — Egger, J. G.; Friedberg, W.; Grzybowski, J.; Lorenz, T.; Schlumberger, C.; Wanner, J.; Welch, R.; Wright, J.
——, deformed.—Yakovlev, N.
——, Devonian.—Schubert, R. J., &c.
——, Jurassic.—Remeš, M.
——, Quaternary.—Chapman, F.; Madsen, V.; Reade, T. M., &c.; Wright, J.
——, Tertiary.—Bœttger, O.; Chapman, F.; Douvillé, H.; Fornasini, C.; Liebus, A.; Martelli, A.; Martin, K., &c.; Newton, R. B.; Procházka, V. J.; Sacco, F.; Schubert, R. J,; Silvestri, A.
——, text-book on.—Chapman, F.
Forbesiocrinus.—Springer, F.
Forest-bed, cut yew from.—Longe, F. D.
——, Westbury-on-Severn.—Buckman, S. S.
Formations, classification. *See* Sedimentary & Rock.
Formosa I. (N. Pacific).—Newton, R. B.; Richthofen, F. von; Yoshiwara, S.
Forsterite.—Arsandaux, H.; Goodchild, J. G.
Fort-Cassin Beds.—Dwight, W. B.
Fossarus.—Rehbinder, B. von.
Fossils, serial sections.—Sollas, W. J.
Foulton Co. (N.Y.).—Kemp, J. F., &c.
Fourche, Mt. (Ark.).—Hayes, C. W.
Fowler (N.Y.).—Crosby, W. O.
Fox Hills (Surrey).—Monckton, H. W.
Foyaite. — Lacroix, A.; Washington, H. S.
Frades, Villa de (Prov. Alemtejo). — Werneke, —.
Fragilaria.—Pantocsek, J.; Ries, H.
France, Central massif.—Launay, L. de.
——, kaolin.—Rœsler, H.
——, lithographic stones.—Anon., 59.
——, Subalpine district.—Preller, C. S. Du R.
——. *See also* Provence, &c.
Franche Comté (France).—Fournier, E.
Franconia (Bavaria).—Koken, E.; Reis, O. M.; Schlosser, M.
Frankfort - on - the - Main (Germany), Senckenberg Natural History Museum. —Kinkelin, F.
Frankley (Worcestershire).—Cantrill, T. C.
Franklin Co. (N.Y.).—Cushing, H. P.
Franz Josef Land (Arctic).—Nathorst, A. G.

French Colonies, mineralogy of.—Lacroix, A.
—— ——, ore-deposits.—Pelatan, L.
French Guiana.—Geay, F.; Pelatan, L.
French Hoek (Cape Colony).—Schwarz, E. H. L.
Frenelopsis.—Hill, R. T.
FRENZEL, F. A. *See* Beck, R.
Frias mines (Colombia).—Russell, A. J.
Fribourg (Switzerland). — Sarasin, C., &c.
Frindsbury (Kent).—Bird, C.
Frisby (Leicester).—Rœchling, H. A., &c.
Frohnleiten (Styria).—Setz, W.
Frondicularia.—Chapman, F.; Wanner, J.
Fucoids, Jurassic.—Lorenz, J. R. von.
Fulda (Nassau).—Eck, H.
Fulgurites.—Hallock, W.; Julien, A. A.
Fullers' Earth, Gloucester.—Reynolds, S. H., &c.
—— ——, Turkey.—Anon., 65.
Fumaroles, Montana.—Weed, W. H.
Fumel (Lot-et-Garonne).—Sauvage, H. E.
Funafuti (Ellice Is.).—Chapman, F.
Fungi, Carboniferous.—Renault, B.
——, Silurian.—Loomis, F. B.
Für (Hungary).—Timkó, E.
Furfooz (Namur).—Van den Broeck, E.
Fusus.—Choffat, P.; Ortmann, A. E.; Quaas, A.; Ravn, J. P. J.; Toula, F.
Fyn I. (Denmark).—Madsen, V.

Gabbro, Bohemia.—John, C. von.
——, Cornwall.—Lowe, H. J.
——, Dutch Guiana.—Bergt, W.
——, Labrador.—Daly, R. A.
——, Madagascar.—Lacroix, A.
——, Tasmania.—Twelvetrees, W. H.
——, Urals.—Duparc, L., &c.
Gainsborough (Lincoln).—Griffith, P.
'Gaisa' formation, Varanger Fjord.—Norman, A. M.
Galda, Monte (Venetia).—Dal Piaz, G.
Galena, Dauphiné.—Muller, —.
——, Tuscany.—Angelis d'Ossat, G. de.
——. *See also* Lead.
Galeocerdo.—Stromer, E.
Galerus.—Ortmann, A. E.; Quaas, A.
Galicia (Austria-Hungary).—Friedberg, W.; Grzybowski, J.; Rehbinder, B. von.
Galla, Lower (Hungary).—Litschauer, L.
Gallaland (N.E. Africa).—Neumann, O.
Galle, Point de (Ceylon). — Coomáraswámy, A. K.
Gallina (Calabria).—Stefano, G. de.
Galway (Ireland).—Kilroe, J. R., &c.: Kinahan, G. H.; Welch, R.
Gamka Poort (Cape Colony).—Schwarz, E. H. L.
Gard (S. France). — Michel-Lévy, A., &c.; Pellat, E.
Garda, Lake (N. Italy).—Airaghi, C.; Baldacci, L., &c.; Cacciamali, G. B.; Clerici, E.; Nicolis, E.
Gardinia.—Engelhardt, H.
Garfagnana (Tuscany).—Levi, G.
Gargano, Mte. (Apulia). — Checchia, G.
Garnet.—Freyn, R.
Garnetiferous rocks, Thuringia. — Schlegel, K.
Garnieria.—Sayn, G.
Garonne, Cap (Var).—Emmons, S. F.
Garra, Jebel (Egypt).—Ball, J.
Garzonia.—Ameghino, F.
Gas (natural), coal enclosing.—Bedson, P. P.; Broockmann, —.
—— (——), Colorado.—Lakes, A.
—— (——), New York, &c.—Bishop, I. P.; Oliphant, F. H.; Orton, E.
——, Sussex.—Anon., 49.
——, Texas, &c.—Adams, G. I.
Gascony (France). — Chudeau, R.: Michel-Lévy, A., &c.
Gasteropoda, Cambrian.—Matthew, G. F.
——, Carboniferous.—Donald, J.; Sardeson, F. W.; Weller, S.
——, Cretaceous.—Broili, F.; Burckhardt, C.; Choffat, P.; Hill, R. T.; Longhi, P.; Quaas, A.; Ravn, J. P. J.: Rehbinder, B. von; Reid, C.: Stanton, T. W.; Sturm, F.; Wanner, J.; Wollemann, A.; Vogel, F.
——, Devonian.—Clarke, J. M.; Drevermann, F.; Wood, E.
——, Jurassic.—Levi, G.; Loriol, P. de; Peron, A.; Remeš, M.; Roth, S., &c. Schlosser, M.
——, Quaternary. — Brœgger, W. C., &c.; Bullen, R. A.; Madsen, V., &c.; Pallary, P.; Wesenberg-Lund, C.
——, Silurian.—Donald, J.; Peach, B. N.; Reed, F. R. C.
——, Tertiary.—Andrusov, N.; Bœttger, O.; Cossmann, M.; Dainelli, G.; Deninger, K.; Depéret, C.; Jooss, C.; Lœrenthay, E.; Mayer-Eymar, C.; Ortmann, A. E.; Pace, S.; Pallary, P.; Procházka, V. J.; Sacco, F.; Schuchert, C.; Simionescŭ, J.; Toula, F.; Trentanove, G.
——, Triassic.—Gortani, M.
Gastrochæna.—Quaas, A.
Gastrodorus.—Haizmann, W.
GAUDRY, A. *See* Perrier, E., &c.
Gaudryina.—Chapman, F.; Grzybowski, J.
Gault-blocks, Denmark.—Madsen, V.
Gaultieria.—Oppenheim, P.
Gavarnie (Hautes-Pyrénées).—Bresson, A.
Gazacrinus.—Weller, S.
Gazella.—Seguenza, L.
Gèdre (Hautes-Pyrénées).—Bresson, A.
'Geest.' *See* Soils, unmodified.
Geikieite.—Sustchinski, P. von.
Geisenheim (Hesse).—Leppla, A., &c.
Gelterkinde (Basel).—Buxtorf, A.
Gembloux (Namur).—Stainier, X.

Gemellipora.—Maplestone, C. M.
Gems. *See* Precious Stones.
Geneva, Lake of (Switzerland).—Forel, F. A.
Genota.—Ortmann, A. E.
Genth, F. A. *See* Barker, G. F.
Geocronite.—Achiardi, G. d'; Prior, G. T.
Geography, geology &.—Davis, W. M.
Geological climates.—Harmer, F. W.
—— Congress. *See* Congress.
—— photographs.—Anon., 44; Watts, W. W.; Wheeler, A. O.
—— Society.—Lake, P.; Sherborn, C. D.
—— ——, medals, &c.—Teall, J. J. H.
—— —— of America.—Ami, H. M.; Fairchild, H. Le R.
—— —— of Brussels.—Renard, A.; Rutot, A.
—— —— of France.—Lapparent, A. de.
—— ——, German.—Fritsch, K. von; Keilhack, K.; Koken, E.
—— —— of Hull.—Sheppard, T.; Stather, J. W.
—— ——, Hungarian.—Anon., 23; Koch, A.
—— —— of Italy.—Anon., 22; Parona, C. F.
—— ——, Servian.—Radovanovič, S.
—— Survey, Alsace-Lorraine.—Jannensch, W.
—— ——, Austria-Hungary.—Kalecsinski, A. von; Stache, G.
—— ——, Baden.—Sauer, A.; Thuerach, H.
—— ——, Canada.—Bell, R., &c.; Dowling, D. B.
—— ——, Cape Colony.—Corstorphine, G. S.; Rogers, A. W., &c.; Schwarz, E. H. L.
—— ——, Denmark.—Grœnwall, K. A.; Hartz, N.; Madsen, V.; Ussing, N. V.
—— ——, Egypt.—Andrews, C. W., &c.; Ball, J.; Beadnell, H. J. L.; Lucas, A.
—— ——, England & Wales.—Allen, H. A.; Barrow, G., &c.; Flett, J. S.; Gibson, W., &c.; Newton, E. T.; Pollard, W.; Reid, C., &c.; Sherborn, C. D.; Teall, J. J. H., &c.; Thomas, H. H., &c.; Woodward, H. B.
—— ——, Finland.—Frosterus, B.; Ramsay, W., &c.; Sederholm, J. J.
—— ——, France.—Michel-Lévy, A., &c.
—— ——, Great Britain & Ireland.—Teall, J. J. H., &c.
—— ——, Hesse.—Lepsius, R.
—— ——, Hungary.—Bœckh, J.
—— ——, India.—Griesbach, C. L.
—— ——, Italy.—Pellati, N.
—— ——, Japan.—Kochibe, T., &c.
—— ——, Maryland.—Reid, H. F., &c.; Ries, H.; Willis, B.
—— ——, Newfoundland.—Howley, J.
Geological Survey, New Jersey.—Kuemmel, H. B., &c.
—— ——, New South Wales.—Maclachlan, D. C.; Pittman, E. F.
—— ——, New York State.—Merrill, F. J. H.
—— ——, Norway.—Brœgger, W. C.; Helland, A.; Muenster, T.; Reusch, H.
—— ——, Prussia & Thuringia.—Anon., 26; Beyschlag, F.
—— ——, Queensland.—Rands, W. H.
—— ——, Russia.—Karpinski, A.; Kaunhowen, F.
—— ——, ——. *See also* Siberia, &c.
—— ——, Scotland.—Flett, J. S.; Geikie, Sir A., &c.; Goodchild, J. G.; Hinxman, L. W., &c.; Peach, B. N.; Teall, J. J. H., &c.
—— ——, Spain.—Lozano, R. S.; Mallada, L.; Puig y Larraz, G.
—— ——, Sweden.—Blomberg, A.; Geer, G. de; Hedstrœm, H.; Holm, G.; Holmquist, P. J.; Holst, N. O.; Lindstrœm, A.; Munthe, H.; Petersson, W.; Svedmark, E.; Tœrnebohm, A. E., &c.
—— ——, Switzerland.—Muehlberg, F.; Rollier, L.
—— ——, Transvaal.—Molengraaff, G. A. F.
—— ——, United States of America.—Warman, P. C.
—— ——, Washington (U.S.A.).—Landes, H.; Shed, S.
—— surveying.—Eckel, E. C.; Hobbs, W. H.; Keyes, C. R.; Lakes, A.; Van Ertborn, O.
—— ——, photographic.—Wheeler, A. O.
—— text-books.—Brigham, A. P.; Cole, G. A. J.; Frech, F.; Geikie, Sir A.; Geikie, J.; Jukes-Browne, A. J.; Kayser, E.; Kreichgauer, D.
—— training.—Van Hise, C. R.
—— ——, Niagara Gorge &c.—Grabau, A. W.; Hogg, E. G.
Geologists, Association of American, (1838) commemoration.—Anon., 24.
Geology, American, 1892-1900.—Weeks, F. B.
——, applied.—Macconnell, P.
——, atmosphere &.—Stevenson, J.
——, British Association, Belfast.—Anon., 43, 44, 45, 46.
——, Canada.—Ami, H. M.
——, decimal classification &.—Mourlon, M.
——, England (N.) & Lincolnshire.—Sheppard, T.
——, evolution &.—Frazer, P.; Grant, C. C.; Meunier, St.; Sollas, W. J.
——, geography &.—Davis, W. M. Mackinder, H. J.
——, hemispheres &.—Kreichgauer, D.
——, lightning &.—Fredholm, K. A.
——, mining &.—Spurr, J. E.

Geology, progress of.—Capellini, G.; Le Conte, J.
——, scenery &.—Anon., 37; Avebury, Lord; Frosterus, B.; Geikie, Sir A. Geikie, J.
——, Scottish.—Horne, J.
——, Spain.—Puig y Larraz, G.
——, text-book of. *See* Geological.
George (Cape Colony).—Rogers, A. W., &c.
George, Lake (N.Y.).—Kemp, J. F.
Georgia (U.S.A.).—Pratt, J. H.; Watson, T. L.
Georgia, South (Antarctic).—Andersson, J. G.
Geosaurus.—Fraas, E.
Gephyroceras.—Frech, F.
German Geological Society.—Fritsch, K. von; Keilhack, K.; Koken, E.
—— Petrographical Institutes.—Morozevich, I.
German S.W. Africa.—Guerich, G.
—— E. Africa. *See* Boma, &c.
Germanonautilus.—Mojsisovics, E. von.
Germany (N.) Drift-plains.—Cole, G. A. J.; Geinitz, E.; Jentzsch, A.; Milthers, V., &c.
—— (—) pre-Tertiary floor.—Gagel, C.
——. *See* Baden, Earthquakes, &c.
Gervillia.—Bittner, A.; Frech, F.; Gortani, M.; Loriol, P. de, &c.; Stanton, T. W.
Geryon.—Ortmann, A. E.
Geysers, model of.—Munby, A. E.
Giants' Causeway (Antrim).—Gray, W.
Giants' kettles.—Eggleston, J. W.; Salmojraghi, F.; Upham, W.
Gibbsite.—Warth, H.
Gibbula.—Brœgger, W. C., &c; Ortmann, A. E.
Ginglymostoma.—Stromer, E.
Ginkgo.—Krasser, F.
Giraffe, Quaternary.—Major, C. I. F.
Gironde (France).—Fallot, E.
Girvanella.—Schubert, R. J.
Gismondite.—Zambonini, F.
Giumarra (Sicily).—Viola, C.
Glacial conglomerate, Table-Mountain Sandstone.—Rogers, A. W.
—— deposits, Belgium, &c. — Rutot, A.
—— ——, British.—Macconnell, P.
—— ——, Cheshire.—Edwards, W.
—— ——, Denmark.—Davis, P.; Harder, P.; Madsen, V.; Œstrup, E.
—— ——, Essex.—Harmer, F. W.
—— ——, Finland. — Hammarstrœm, R.; Rosberg, J. E.
—— ——, French Subalpine.—Preller, C. S. Du R.
—— ——, Germany. — Cole, G. A. J.; Geinitz, E.; Jentzsch, A.; Klautzsch, A.; Krause, P. G.; Maas, G.; Milthers, V., &c.; Schmidt, M.
—— ——, Indiana.—Macbeth, W. A.
—— ——, Ireland. — Christen, —; Hinch, J. de W.; Reade, T. M.; Teall, J. J. H.; Wright, W. B.
Glacial deposits, Lombardy.—Mœbus, B.
—— ——, Maine.—Crosby, W. O.
—— ——, Man (I. of).—Dawkins, W. B.
—— ——, Merseburg.—Wuest, E.
—— ——, Netherlands. — Dubois, E.; Lorié, J.
—— ——, New York.—Kemp, J. F.; Ries, H.; Woodworth, J. B.
—— ——, New Zealand.—Park, J.
—— ——, nomenclature.—Hœgbom, A. G.
—— ——, Norfolk. — Harmer, F. W.; Monckton, H. W., &c.
—— ——, Norway.—Brœgger, W. C.; Reusch, H.
—— ——, Ohio.—Leverett, F.
—— ——, origin of.—Meunier, St.
—— ——, Russia.—Missuna, A.
—— ——, Scotland. — Geikie, Sir A.; Hinxman, L. W., &c.
—— ——, Suffolk.—Harmer, F. W.; Hill, E.; Monckton, H. W., &c.
—— ——, Sweden. — Blomberg, A.; Munthe, H.
—— ——, Switzerland. — Antenen, F.; Kissling, E.; Preller, C. S. Du R.
—— ——, Tasmania.—Kitson, A. E.
—— ——. *See also* Drift, Erratics, &c.
—— erosion.—Bertrand, J.
—— lakes, Minnesota. — Winchell, N. H.
—— -palagonite formation, Iceland.—Pjetursson, H.
—— periods.—Longe, F. D.; Martin, D.; Sarasin, F., &c.
—— striæ, Yorkshire.—Sheppard, T.
——. *See also* Glaciation.
Glaciated pebbles.—Meunier, St.
Glaciation, African (S.) Permian. — Bastin, E. S.; Frech, F.
——, Antarctic.—Andersson, J. G.
——, Austria & Bavaria.—Penck, A., &c.
——, Baden.—Steinmann, G.
——, British Columbia.—Gwillim, J. C.
——, Connecticut.—Eggleston, J. W.; Hobbs, W. H.
——, Corsica.—Meunier, St.
——, Denmark.—Milthers, V.
——, Durham & Northumberland. — Dwerryhouse, A. R.
——, East Anglia.—Longe, F. D.
——, Indiana. — Macbeth, W. A.; Marsters, V. F.
——, Labrador.—Daly, R. A.
——, Lancashire.—Reade, T. M., &c.
——, Lombardy.—Salmojraghi, F.
——, Merseburg.—Zimmermann, E.
——, Michigan.—Sherzer, W. H.
——, Minnesota.—Upham, W.
——, Natal.—Anderson, W.
——, New South Wales.—Frech, F.
——, New York.—Ogilvie, I. H.
——, Russia.—Bertrand, J.
——, Skye, I. of.—Harker, A.
——, Switzerland. — Penck, A., &c.; Zschokke, F.

Glaciation, Tasmania.—Hogg, E. G.; Kitson, A. E.
——, Wisconsin.—Upham, W.
——, Yorkshire.—Dwerryhouse, A. R.; Kendall, P. F.; Stather, J. W.
——. *See also* Glacial deposits.
Glacier, banding in.—Hess, H.
—— -erosion.—Arçtowski, H.
—— -lakes, Cheviot & Cleveland Hills.—Kendall, P. F.
—— -——, Durham, &c.—Dwerryhouse, A. R.
—— -——, New York.—Kemp, J. F.
—— movement.—Crammer, H.; Hess, H.
——, snow-ice &.—Jegerlehner, J.
—— variations.—Finsterwalder, S., &c.; Forel, F. A., &c.; Œyen, P. A.; Rabot, C.; Reid, H. F.
Glaciers, Alpine valleys &.—Bonney, T. G.
——, America (N.), &c.—Scott, A. C.
——, International Commission.—Finsterwalder, S., &c; Kilian, W.; Rabot, C.
——, Greenland.—Hœrnes, R.
——, Himalayas.—Freshfield, D. W.; Garwood, E. J.; Holdich, Sir T. H.
——, Monte Rosa.—Dainelli, G.
——, Norway.—Œyen, P. A.
——, Patagonia.—Holdich, Sir T. H.
Glacio-fluviatile conglomerates, subalpine.—Preller, C. S. Du R.
Gladstone (Queensl.).—Dunstan, B.
—— (Tasm.).—Twelvetrees, W. H.
Glamorganshire.—Monckton, H. W.; Strahan, A., &c.; Teall, J. J. H., &c.; Tiddeman, R. H., &c.; Wight, W. D.; Woodward, H.
Glandina.—Dainelli, G.
Glandulina.—Liebus, A.; Silvestri, A.
Glarus (Switzerland).—Blumer, S.
Glatz (Silesia).—Sturm, F.
Glauconia.—Choffat, P.; Hill, R. T.; Rehbinder, B. von; Sturm, F.
Glaucophane, California.—Nutter, E. H., &c.
——, New Caledonia, &c.—White, H. P.
——, Piedmont.—Piolti, G.; Zambonini, F.
Gleichenberg (Styria).—Sigmund, A.
Gleichenia.—Turner, H. W.
Glendoo (Co. Dublin).—Wright, W. B.
Globigerina.—Chapman, F.; Fornasini, C.; Procházka, V. J.
Globigerina-limestone, Seran.—Martin, K.
—— -ooze.—Murray, Sir John.
Glossites.—Weller, S.
Glossopteris.—Anderson, W.; Arber, E. A. N.; Zeiller, R.
Gloucestershire.—Buckman, S. S., &c.; Morgan, C. Ll.; Reynolds, S. H., &c.
Glycimeris.—Choffat, P.; Ortmann, A. E.
Glyptostrobus.—Engelhardt, H.
Glytatelus.—Ameghino, F.
Gneiss, Anglesey.—Callaway, C.
Gneiss, Baden.—Rosenbusch, H.
——, Bohemia.—Suess, F. E.
——, California.—Hershey, O. H.
——, Ceylon.—Coomáraswámy, A. K.; Schiffer, E. C.
——, Darjiling.—Parkinson, J.
——, Donegal.—Cole, G. A. J.
——, Hungary.—Schafarzik, F.
——, Mysore.—Primrose, A.; Sambasiva Iyer, V. S.; Slater, H. K.; Smeeth, W. F.
——, New York.—Kemp, J. F.
——, Scotland.—Hinxman, L. W., &c.; Horne, J.
——, Spain.—Macpherson, J.
——, Thuringia.—Luedecke, O.
——, Washington.—Landes, H.
——, Yukon Valley.—Macconnell, R. G.
Gobbins Cliffs (Antrim).—Welch, R. J.
Gobi Desert (Asia).—Futterer, K.
Godalming (Surrey).—Coomáraswámy, A. K.
Godesberg (Rh.-Prussia).—Lorié, J.
Gogebic (Mich.).—Van Hise, C. R.
Gold, Africa (W.).—Cadell, H. M.; Launay, L. de; Macedo, J. de; Pelatan, L.; Sawyer, A. R.
——, Alaska.—Brooks, A. H.; Mendenhill, W. C.
——, Australia (S.).—Brown, H. Y. L.; O'Loughlin, L., &c.
——, —— (W.).—Howell, A.; King, H. S., &c.; Lidgey, E.; Maitland, A. G.; Moss, F.; Simpson, E. S.; Smith, H. V.; Venn, H. W.; Wells, R. N.
——, Bohemia.—Krusch, P.
——, Brazil.—Berg, G.
——, British Columbia.—Prior, E. G.; Robertson, W. F.
——, British Guiana.—Hargreaves, T. S., &c.; Harrison, J. B.
——, California.—Bordeaux, A.
——, Canada (N.W.).—Bell, R., &c.
——, Carinthia.—Canaval, R.
——, Caucasus.—Bogdanovich, K.
——, China.—Leclère, A.
——, Colorado.—Goldsmith, E.; Lakes, A.; Ransome, F. L.; Yunge, G.
——, deposition of.—Maclaren, J. M.
——, distribution of.—Bodenbender, G.; Sederholm, J. J.
——, Dutch East Indies.—Liebenam, W.; Molengraaff, G. A. F.
——, Egypt.—Liebenam, W.
——, Finland.—Sarlin, E.; Sederholm, J. J.
——, France.—Caraven-Cachin, A.
——, French Guiana, Indo-China, Madagascar, & New Caledonia.—Pelatan, L.
——, Hungary.—Gesell, A.
——, India.—Griesbach, C. L.
——, ——. *See also* Mysore, &c.
——, Ireland, Scotland, & Wales.—Maclaren, J. M.
——, Mysore.—Carr, F. E.; Primrose, A.; Sambasiva Iyer, V. S.; Slater, H. K.; Smeeth, W. F.

Gold, Natal.—Gray, C. J.
——, Nevada.—Yunge, G.
——, Newfoundland.—Howley, J. P.
——, New South Wales.—Andrews, E. C.; Jaquet, J. B.; Maclachlan, D. C.; Pittman, E. F.; Slee, W. H. J.
——, New Zealand. — Hayes, J.; Macgowan, J.; Payne, F. W.
——, Nova Scotia.—Gilpin, E., jun.
——, Peru.—Fort, M.; Letts, R. F.; Olaechea, T.
——, Philippine Is.—Karuth, F.
——, Quaternary - sand extraction. — Nevius, J. N.
——, Queensland.—Ball, L. C.; Maclaren, J. M.; Rands, W. H.
——, Rhodesia.—Launay, L. de.
——, Siberia.—Gerasem, A. P.; Ijitzk, N.; Ivanov, M. M.; Meister, A.; Yachevski, L.; Yavorovski, P. K.
——, Tasmania.—Twelvetrees, W. H.; Wallace, W. H., &c.; Williams, L.
——, Transvaal.—Hammond, J. H.; Launay, L. de; Pearson, H.; Smith, W.
——, Urals.—St. Rainer, L.
——, Victoria (Austral.).—Jenkins, H. C.; Stirling, J.
——, Washington (U.S.A.).—Landes, H., &c.
——, Zululand.—Gray, C. J., &c.
——. *See also* Auriferous.
Gommern (Magdeburg). — Denckmann, A., &c.
Gomphonema.—Ries, H.
Gondwana formation.—Coomáraswámy, A. K.; Frech, F.; Zeiller, R.
Gondwana-land.—Arber, E. A. N.
Goniatites.—Denckmann, A.
Gonioclymenia.—Frech, F.
Goniometers.—Penfield, S. L.
Goniomya.—Sturm, F.
Gonionautilus.—Mojsisovics, E. von.
Goniophora.—Drevermann, F.; Maurer, F.; Reed, F. R. C.
Goniospiria & *Goniostropha.*—Donald, J.
Goniothecium.—Pantocsek, J.
Gonodon.—Bittner, A.; Gortani, M.
Goole (Yorks).—Gibson, W.
Gorbilok R. (Siberia).—Ijitzk, N.
Gorges, origin of.—Brunhes, J.
Gorgona I. (*off* Tuscany).—Ugolini, R.
Goritz (Austria).—Redlich, K. A.
Gorlice (Galicia).—Grzybowski, J.
Goslar (Harz).—Bergeat, A.
Gosseletia.—Maurer, F.
Gotland (Sweden).—Blomberg, A.; Dusén, P.; Geer, G. de; Grœnwall, K. A.; Holm, G., &c.; Holst, N. O.; Lindstrœm, A.; Lundbohm, H., &c.; Moberg, J. C.; Munthe, H.; Strandmark, J. E.; Svedmark, E.
——. *See also* Scania, &c.
Gotlandian.—Barrois, C.; Kerforne, F.; Moberg, J. C.
Gourdon (Gascony).—Michel-Lévy, A., &c.
Gourre R. (Drôme).—Kilian, W.
Gouwkamma (Cape Colony).—Schwarz, E. H. L.
Gower (Glamorgan).—Monckton, H. W.; Teall, J. J. H., &c.; Tiddeman, R. H., &c.
Grabow (W. Prussia).—Weissermel, W.
Graian Alps.—Bonney, T. G.
Grammoceras.—Janensch, W.
Grammysia.—Drevermann, F.; Maurer, F.; Weller, S.
Gran coal-basin (Hungary).—Telegd, L. R. von.
Granada (Spain).—Lozano, R. S.; Nicklès. R.
Grand R. (Colo.).—Riggs, E. S.
Grandes-Rousses (French Jura).—Termier, P.
Grandglise (Hainault).—Cornet, J.
Grandidierite.—Lacroix, A.
Granite, Aberdeen.—Rennie, Sir J.
——, Algeria.—Termier, P.
——, Antrim.—Phillips, J. St. J.
——, Austria (U.).—Graber, H. V.
——, Auvergne.—Launay, L. de.
——, Bavaria.—Œbbeke, K., &c.
——, Bornholm I. & Denmark.—Ussing, N. V.
——, California & Oregon.—Hershey, O. H.
——, Cornwall.—Hill, J. B.; Lowe, H. J.; Teall, J. J. H., &c.
——, Donegal.—Cole, G. A. J.
——, Egypt.—Somervail, A.
——, Finland.—Frosterus, B.
——, Georgia.—Watson, T. L.
——, Gotland. — Elsden, J. V., &c.; Lundbohm, H., &c.
——, Himalayas.—Macmahon, C. A.
——, Ireland.—Kinahan, G. H.
——, Labrador.—Daly, R. A.
——, Leicester. — Rœchling, H. A.; Watts, W. W.
——, Loire.—Friedel, G.
——, Madagascar.—Lacroix, A.
——, melting-point of.—Dœlter, C.
——, Mysore.—Slater, H. K.; Smeeth, W. F.
——, New York.—Kemp, J. F.
——, Normandy.—Becke, F.; Leclère, A.
——, 'petit.'—Destinez, P.
——, plasticity of.—Graber, H. V.
——, Queensland.—Andrews, E. C.
——, Sardinia.—Riva, C.
——, Saxony.—Reinisch, R.
——, Scotland.—Geikie, J., &c.; Hinxman, L. W., &c.
——, Silesia.—Milch, L., &c.
——, Tasmania.—Twelvetrees, W. H.
——, Thuringia.—Luedecke, O.; Schlegel, K.
——, Venetia.—Dal Piaz, G.
——, Vermont.—Finlay, G. I.
——, Wales.—Greenwell, A.
——, Washington (U.S.A.).—Landes, H.
——, Westmoreland.—Marr, J. E.
——, Yukon Valley.—Macconnell, R. G.
——. *See also* Igneous rocks.

Granularia.—Lorenz, T.
Granulite, Bohemia.—John, C. von.
——, Portugal.—Souza-Brandão, V. de.
——, Sardinia.—Rimatori, C,
——, Urals.—Duparc, L.
Granulitic schists, Scotland.—Hinxman, L. W., &c.
Graphite, Brazil.—Derby, O. A.
——, Brunswick.—Fromme, J.
——, Ceylon.—Coomáraswámy, A. K.; Weber, H. A.
——, Connecticut.—Emerson, B. K.
——, France.—Coignard, —, &c.
——, Indo-China.—Pelatan, L.
——, United States.—Pratt, J. H.
——. *See also* Cliftonite.
Graphularia.—Wanner, J.
Graptolites.—Barrois, C.; Elles, G. L., &c.; Grant, C. C.; Hall, T. S.; Holm, G., &c.; Kerforne, F.; Kruft, L.; Moberg, J. C.; Peach, B. N.; Strandmark, J. E.
Graptolitic shales, Gotland.—Holm, G., &c.; Moberg, J. C.
Graptotheca.—Reed, F. R. C.
Grås, Lake (Svealand).—Dahl, C. G.
Gratz (Styria).—Setz, W.
Gravels, Berkshire & Surrey.—Monckton, H. W.
——, California.—Bordeaux, A.; Hershey, O. H.
——, Devon.—Ussher, W. A. E.
——, Dorset & Hants.—Reid, C.
——, German (N.).—Linstow, O. von; Wuest, E.
——, Hainault.—Rutot, A.
——, Ontario.—Coleman, A. P.
——, Paris Basin.—Grossouvre, A. de; Rutot, A.
——, Thames-Valley.—Newton, E. T.
——. *See also* Drift, &c.
Gravenoire (Auvergne).—Cullis, C. G., &c.
Gravity, geology &.—Lœwinson-Lessing, F.
——, Himalaya Mts.—Burrard, S. G.
——, Italy.—Chistoni, C.
——, variations.—Denison, F. N.; Helmert, F. R.
Great Ayton (Yorks).—Barrow, G.
Great-Basin region (Nevada, &c.).—Turner, H. W.
Great Barrier Reef, Australia.—Andrews, E. C.
Great Britain, Geological Survey. *See* Geological Survey.
——, mines & minerals.—Atkinson, J. B., &c.; Foster, C. Le N., &c.
——, Royal Coal Commission.—Anon., 52.
——, yew in.—Conwentz, H.
Great Namaqualand (S. Africa).—Kalkovski, E.
Great Salt Lake (Utah).—Lakes, A.
Greece.—Anon., 60; Cayeux, L.; Cristomanos, —; Eginitis, D.; Ernst, C. von; Hilber, V.; Major, C. I. F.; Philippson, A.; Woodward, A. S.
Greenhithe (Kent).—Newton, E. T.
Greenland.—Bœggild, O. B.; Hœrnes, R.; Nathorst, A. G.; Steenstrup, K. J. V.; Ussing, N. V.
Greenockite.—Cornwall, H. B.
Green-Pond Mts. (N. J.).—Kuemmel, H. B.
Greensand, Lower. *See* Aptian.
Greenstones, Cornwall.—Hill, J. B.
Greifenstein (Harz).—Lotz, H.
Gressoney Valley (Piedmont).—Zambonini, F.
Greylock Mt. (Mass.).—Cleland, H. F.
Griffith, G. *See* Anon., 5.
Griffithides.—Woodward, H.
Grigna Mts. (Lombardy).—Mariani, E.
Grignon (Seine).—Meunier, St.
Grisons (Switzerland).—Bodmer-Beder, A.; Franchi, S.; Lorenz, T.; Rothpletz, A.; Tarnuzzer, C.
Grits, Headington calcareous.—Bell, A. M.
Grosseto (Tuscany).—Angelis d'Ossat, G. de.
Grosspriesen (Bohemia).—Hibsch, J. E.
Gryphæa.—Burckhardt, C.; Hill, R. T.; Ortmann, A. E.; Quaas, A.; Wanner, J.
Guadeloupe (W. I.).—Garnier, J.
Guanajuato (Mexico).—Halse, E.
Guano, aluminium in Chilian.—Servat, F.
——, Victoria (Austral.).—Macivor, R. W. E.
Guarinite.—Zambonini, F.
Guatemala (C. Am.).—Rockstroh, E.; Sapper, K.
Guelph Formation, Canada.—Grant, C. C.
Guiana. *See* British, &c.
Guildford (Surrey).—Coomáraswámy, A. K.
Guinea (W. Africa).—Macedo, J. de.
Gundlepet Taluk (Mysore).—Primrose, A.
Gunn, W. *See* Anon., 6.
Gwynnia.—Brœgger, W. C., &c.
Gymnites.—Longhi, P.; Mojsisovics, E. von.
Gympie goldfield (Queensl.).—Rands, W. H.
Gypsum.—Gaubert, P.; Keyes, C. R.; Muehlhauser, A.; Parker, E. W.
Gyroceras.—Weller, S.
Gyrodus.—Leriche, M.; Sauvage, H. E.
Gyrophyllites.—Lorenz, J. R. von.
Gyropleura.—Ravn, J. P. J.; Redlich, K. A.
Gyroporella.—Giattini, G. B.; Remeš, M.

Habelschwerdt (Silesia).—Sturm, F.
Hackmanite.—Borgstrœm, L. H.; Gaubert, P.
Haddam Neck (Conn.).—Bowman, H. L.
Haddonia.—Chapman, F.
Hadrianus.—Hay, O. P.

Hadropithecus.—Lorenz, L. von.
HÆCKEL & ST. AUGUSTINE.—Frazer, P.
Hæmatite, mineralogy of.—Sustchinski, P. von.
——, New York.—Crosby, W. O.
——, orthoclase containing scales of.—Tertsch, —.
Hain R. (Belgium).—Cornet, J.
Hainault (Belgium).—Anon., 63; Cornet, J.; De Pauw, L.; Forir, H.; Rutot, A.; Van den Broeck, E.
Hakgala (Ceylon).—Coomáraswámy, A. K.
Halberstadt (Magdeburg).—Kubierski, K.; Wuest, E.
Haldon Hills (Devon).—Jukes-Browne, A. J.
Halec.—Woodward, A. S.
Halesworth (Suffolk).—Woodward, H. B.
Hallaton (Leicester).—Rœchling, H. A.
Halle-a.-Saale (Germany).—Fritsch, K. von; Rœsler, H.
Hallein (Salzburg).—Aigner, A.
Hallstatt (U. Austria).—Aigner, A.
—— -limestone, division of.—Bittner, A.; Mojsisovics, E. von.
Halonia.—Kidston, R.
Halsbach (Saxony).—Frenzel, A.
Halysites.—Počta, P.
Hamilton (Ont.).—Grant, C. C.
—— (Queensl.).—Ball, L. C.
—— Co. (Ind.).—Kindle, E. M.
—— Co. (N.Y.).—Kemp, J. F.
Hamites.—Elbert, J.
Hammatoceras.—Janensch, W.
Hampshire.—Jukes-Browne, A. J.; Reid, C.; Sherborn, C. D.; White, H. J. O.
Han-sur-Lesse (Namur). — Van den Broeck, E.
Hanging valleys.—Bonney, T. G.; Garwood, E. J.
Hannayite.—Macivor, R. W. E.
Hanover (Germany).—Hoyer, —; Kloos, J.; Kœrt, W.; Menzel, H.; Mueller, G.; Schmidt, M.; Wollemann, A.
Hapaloides.—Ameghino, F.
Hapaloxylon.—Renault, B.
Haplocrinus.—Weller, S.
Haplophragmium.—Chapman, F.; Grzybowski, J.; Liebus, A.; Schubert, R. J.; Wanner, J.
Hapsiphyllum.—Simpson, G. B.
Hardanger Fjord (Norway).—Monckton, H. W.
Hargicourt (Somme).—Gosselet, J.
Harlyn Bay (Cornwall).—Bullen, R. A.
Harpoceras.—Hoyer,—; Janensch, W.; Loriol, P. de, &c.
Harvard College, Museum of Comparative Zoology.—Davis, W. M.; Eastman, C. R.; Ward, R. de C.
Harz (Germany).—Bergeat, A; Beushausen, L.; Blasius, W.; Brandes, G.; Fromme, J.; Holzapfel, E; Lotz, H.; Luedecke, O.; Potonié, H.; Wunstorf, W.
Harzburgite.—Bodmer-Beder, A.
Hassan (Mysore).—Jayaram, B.
Hatchericeras.—Stanton, T. W.
HAUCHECORNE, W. *See* Beyschlag, F.
Haugia.—Janensch, W.
Haute-Garonne (France).—Caraven-Cachin, A.
Haute-Loire (France).—Boule, M.
Haute-Saône (France).—Launay, L. de; Mieg, M.
Haute-Vienne (France).—Michel-Lévy, A., &c.
Hautrages (Hainault).—Cornet, J.
HAÜY, R.-J. & V.—Baticle, A.
Haversin (Namur).—Forir, H.; Simoens, G.
Hawaiian Is.—Bishop, S. E.; Emerson, J. S.; Hitchcock, C. H.; Mœhle, F.
Hazledean (Queensl.).—Dunstan, B.
Headington (Oxon.).—Bell, A. M.; Blake, J. F.
Headon Beds, Hants.—Reid, C.
Heaths, origin of.—Smith, W. G.
Hedera.—Palibin, I. V.
Hederella.—Clarke, J. M.
Heemskirk Mt. (Tasm.).—Waller, G. A.
Heinola (Finland).—Frosterus, B.
Hekla (Iceland).—Stefansson, J.
Helderberg Mts. (N.Y.).—Prosser, C. S.
Helicoceras.—Whitfield, R. P.
Helicoprion.—Eastman, C. R.
Heliolites.—Reed, F. R. C.
Heliolithes.—Počta, P.
Helix.—Cossmann, M.; Dainelli, G.; Pallary, P.
Helminthosporium.—Renault, B.
'Hemera.'—Buckman, S. S.
Hemiaster.—Airaghi, C.; Burckhardt, C.; Hill, R. T.; Oppenheim, P.; Sturm, F.; Wanner, J.
Hemicara.—Schlueter, C.
Hemiconus.—Cossmann, M.
Hemifusus.—Sturm, F.
Hemispheres, geology &.—Kreichgauer, D.
Hemiutætus.—Ameghino, F.
Heraclea (Asia Minor).—Zeiller, R.
Hérault (France).—Bergeron, J.; Collot, —; Depéret, C.; Dereims, A.; Jacquemet, E.; Nicklès, R.; Renault, B.; Rouville, P. G. de.
Herberton (Queensl.).—Cameron, W. E.
Herbières (Hainault).—Cornet, J.
Herbstein (Hesse).—Schottler, W.
Herck (Belgian Limburg). — Van den Broeck, E.
Herrljunga (Sweden).—Munthe, H.
Hertfordshire.—Chapman, F.; Hopkinson, J.; Reid, C.
Hertsfelshausen (Würtemberg).—Knebel, W. von.
Herzegowina.—Bukowski, G. von; Engelhardt, H.; Stefani, C. de, &c.
Hesbaye, La (Belgium).—Fourmarier, P., &c.
Hesse (Germany). — Denckmann, A.; Kayser, E.; Klemm, G.; Kueppers, E.; Leppla, A., &c.; Lepsius, R.;

Luedecke, C.; Salmon, W.; Schottler, W.; Steuer, A.; Trenzen, C.; Wittich, E.
Heterangium.—Nathorst, A.
Heterobrissus.—Airaghi, C.
Heterodontus.—Dean, B.
Heteropoda.—Ortmann, A. E.
Heterostegina.—Chapman, F.
Heterotrypa.—Cumings, E. R.
Hexaprotodon.—Seguenza, L.
Heyst-op-den-Berg (Flanders).—Van Ertborn, O.
Hibbs, Point (Tasm.).—Waller, G. A.
Higashiyana oilfield (Japan).—Kochibe, T., &c.
Highlands, Scottish.—Barrow, G.; Hinxman, L. W., &c.; Horne, J.
Hildesheim (Hanover).—Menzel, H.; Wollemann, A.
Hill End (N.S.W.).—Pittman, E. F.
Himalayas (Asia).—Burrard, S. G.; Freshfield, D. W.; Garwood, E. J.; Griesbach, C. L.; Macmahon, C. A.; Stephens, F. J.
Hin-Boun (Cameroons).—Lacroix, A.
Hinchinbrook I. (Queensl.).—Andrews, E. C.
Hindu Khoosh (Himalayas).—Macmahon, C. A., &c.
Hinnites.—Brœgger, W. C., &c.
Hipparion.—Andrews, C. W.; Gidley, J. W.; Simionescŭ, J.
Hipponoe.—Airaghi, C.
Hipponicharion.—Jones, T. R.; Matthew, G. F.
Hippopotamus.—Andrews, C. W.; Major, C. I. F.; Seguenza, L.
Hippotragus.—Andrews, C. W.
Hippurites.—Dainelli, G.; Termier, P.
Hitchin (Herts).—Chapman, F.; Reid C.
Hœrnesia.—Gortani, M.
Hoferia.—Bittner, A.
Hohensolms (Hesse).—Kayser, E.
Hohenwalde (Brandenburg).—Korn, J.
Hohenzollern (Germany).—Schmidt, A.; Schuetze, E.
Holaster.—Elbert, J.; Lambert, J.
Holasteropsis.—Elbert, J.
Holcodiscus.—Sarasin, C., &c.
Holconautilus.—Mojsisovics, E. von.
Holland.—Dubois, E.; Lambert, J.; Lorié, J.; Mueller, G.
Holocene. *See* Quaternary.
Holograptus.—Elles, G. L., &c.
Holopea.—Schuchert, C.; Weller, S.
Holulé I. (Pacific).—Cooper, C. F.
Holyokite.—Emerson, B. K.
Holzen (Brunswick).—Menzel, P.
Homalonotus.—Drevermann, F.; Holm, G., &c.; Maurer, F.; Woodward, A. S.
Homalophyllum.—Simpson, G. B.
Homalostega.—Wanner, J.
Home Rule (N.S.W.).—Pittman, E. F.
Homotaxy, doctrine of.—Tate, R.
Homotrypa.—Cumings, E. R.; Nickles, J. M.
Homunculites.—Ameghino, F.
Hondsrug (Netherlands).—Dubois, E.
Hope Town (Cape Colony).—Rogers, A. W., &c.
Hope's Nose (Devon).—Hunt, A. R.
Hoplites.—Haizmann, W.; Sarasin, C., &c.
Hoplophoneus.—Matthew, W. D.
Hoplopteryx.—Woodward, A. S.
Hornblende.—Pfeil, K.
—— rocks, Victoria (Austral.).—Mennell, F. P.; Stirling, J.
Hornera.—Procházka, V. J.
Hornfluh (Berne).—Schardt, H.
Horn-Silver mines (Utah).—Emmons, S. F.
Hořowitz (Bohemia).—Liebus, A.
Horsefly R. (B. C.).—Robertson, W. F.
Hot Springs. *See* Thermal waters and Fumaroles.
Höve (Denmark).—Milthers, V.
Howard Co. (Iowa).—Calvin, S.
Howard (Queensl.).—Rands, W. H., &c.
Hoyaux R. (Liége).—Lohest, M.
Hudeklanec (Carniola).—Bittner, A.
Hudson Epoch, Canada.—Wilson, W. G.
Hudson-River Beds.—Moore, J., &c.; Ruedemann, R.
Huelva (Spain).—Klockmann, F.
Hulin, Mt. (Pas-de-Calais).—Gosselet, J.
Hull (Yorks).—Sheppard, T.; Stather, J. W.
Hulta (Gotland).—Munthe, H.
Humber R.—Wheeler, W. H.
Humbolt (Iowa).—Sardeson, F. W.
Hundesheim (L. Austria).—Toula, F.
Hungary.—Adda, K. von; Anon., 23; Baumgartner, K.; Bittner, A.; Bœttger, A.; Gesell, A.; Halaváts, J.; Horusitzky, H.; Jækel, O.; Litschauer, L.; Lœrenthay, E.; Mœsz, G.; Nopčsa, F., Jun.; Pálfy, M. von; Pošewitz, T.; Rœsler, H.; Schafarzik, F.; Telegd, L. R. von; Timkó, E.; Treitz, P.
——. *See also* Petroleum, Soils, &c.
Hunter R. (N.S.W.).—Atkinson, A. A.
Hunyad (Hungary).—Halaváts, J.
Huronian, N. America.—Coleman, A. P.
Hussakite.—Gaubert, P.; Kraus, E. H., &c.; Rœsler, H.
Huxley, T. H. *See* Hunt, A. R.
Huxley, Mt. (Tasm.).—Twelvetrees, W. H.
Hyæna.—Reynolds, S. H.
Hyænodon, *Hyotherium*, & *Hystrix*.—Schlosser, M.
Hyalina.—Pallary, P.
Hyatt, A. *See* Beecher, C. E.
Hybodus & *Hypsocormus*.—Sauvage, E.
Hydractinia.—Oppenheim, P.; Vinassa de Regny, P.
Hydrargillite.—Warth, H.
Hydrobia.—Brœgger, W. C., &c.; Choffat, P.; Lœrenthay, E.; Pallary, P.; Procházka, V. J.; Simionescŭ, J.
Hydrology. *See* Water.

Hydrothermal metamorphism.—Hunt, A. R.
Hydrozoa, Tertiary.—Oppenheim, P.; Vinassa de Regny, P.
Hyolithes.—Groom, T. T., &c.; Holm, G., &c.; Matthew, G. F.; Reed, F. R. C.
Hyolithus.—Ruedemann, R.
Hypechinus.—Ortmann, A. E.
Hyperammina.—Grzybowski, J.; Schubert, R. J.
Hyphomycetes.—Renault, B.
Hypsodus.—Matthew, W. D.
Hypsopatagus.—Lambert, P.
Hyracotherium.—Depéret, C.
Hysterolenus.—Moberg, J. C.
Hystricrinus.—Follmann, O.

Ice-Age, British.—Longe, F. D.
——, causes of the.—Sarasin, F., &c.; Upham, W.
——, Dauphiné.—Martin, D.
——, man &.—Upham, W.
—— meteorology.—Ekholm, N.
Ice R. Valley, Canadian Rocky Mts.—Bonney, T. G.
Iceland. — Nansen, F.; Œstrup, E.; Pjetursson, H.; Prinz, W.; Stefansson, J.; Thoroddsen, Th.; Ussing, N. V.
I'Chang (China).—Gerrard, J.
Ichimba R. (Siberia).—Ijitzk, N.
Ichthyocrinus.—Weller, S.
Ichthyosaurus.—Huene, F. von; Jesup, M. K.; Sauvage, E.; Sheppard, T.
Ictitherium.—Schlosser, M.; Seguenza, L.
Ideodelphys.—Ameghino, F.
Idiophyllum.—Sellards, E. H.
Idocrase.—Hlawatsch, C.
Iffley (Oxon.).—Bell, A. M.
Igneous magmas. *See* Magmas.
—— rocks, Africa (S.).—Anderson, W.; Mennell, F. P.
—— ——, Alaska.—Brooks, A. H., &c.; Mendenhill, W. C.
—— ——, Algeria.—Termier, P.
—— ——, Alpes-Maritimes.—Bertrand L.
—— ——, Anglesey.—Callaway, C.
—— ——, Antarctic.—Macleod, W. A., &c.
—— ——, Antrim.—Gray, W.; Phillips, J. St. J.
—— ——, Asia Minor. — Huntington, E.; Leonhard, R.
—— ——, Australia (W.).—Simpson, E. S.
—— ——, Austria (U.).—Graber, H. V.; Handmann, R.
—— ——, Austria-Hungary. *See* Bohemia, &c.
—— ——, Baden.—Rosenbusch, H.
—— ——, Bavaria.—Knebel, W. von; Œbbeke, K., &c.; Sœllner, J.
—— ——, Bohemia. — Becker, G.; Hibsch, J. E.; Hinterlechner, K.; John, C. von; Slavik, F.
Igneous rocks, British Columbia. — Kemp, J. F.
—— ——, California.—Reid, J. A.
—— ——, Celebes Is.—Buecking, H.; Molengraaff, G. A. F.
—— ——, Ceylon.—Coomáraswámy, A. K.
—— ——, classification of.—Cole, G. A. J.; Cross, W., &c.; Eckel, E. C.; Lœwinson-Lessing, F.; Osann, A.; Twelvetrees, W. H.
—— ——, contact-metamorphism. *See* Contact.
—— ——, Cornwall.—Hill, J. B.; Lowe, H. J.; Teall, J. J. H., &c.
—— ——, Cumberland.—Harker, A.
—— ——, Dakota.—Jaggar, T. A., Jun.
—— ——, Devon.—Ussher, W. A. E., &c.
—— ——, Dutch Guiana.—Bergt, W.
—— ——, Ecuador.—Reiss, W., &c.
—— ——, Egypt. — Lortet, —, &c.; Somervail, A.
—— ——, Ekaterinoslav.—Morozevich, I.
—— ——, Erythræa.—Achiardi, G. d'.
—— ——, formation & origin of.—Teall, J. J. H.
—— ——, French Guiana.—Geay, F.
—— ——, Galway, Wexford, & Wicklow.—Kinahan, G. H.
—— ——, Hawaiian Is.—Mœhle, F.
—— ——, Hesse.—Klemm, G.; Kueppers, E.; Trenzen, C.
—— ——, Himalayas.—Macmahon, C. A.
—— ——, Hungary. — Baumgartner, K.; Bœckh, H.; Pálfy, M. von.
—— ——, Iceland. — Œstrup, E.; Pjeturssen, H.; Prinz, W.; Stefansson, J.
—— —— inclusions. *See* Inclusions.
—— ——, Ireland. *See* Tyrone, &c.
—— ——, Italy. *See* Phlegræan Fields, &c.
—— ——, Kerry.—Gardiner, C. I., &c.
—— ——, Leicestershire. — Rœchling, H. A., &c.; Watts, W. W.
—— ——, Massachusetts.—Wilson, A. W. G.
—— ——, Mexico. — Kroustchov, K. von; Ordóñez, E.
—— ——, Minnesota.—Hall, C. W.
—— ——, Molucca Is.—Martin, K.
—— ——, Mysore. — Primrose, A.; Sambasiva Iyer, V. S.; Slater, H. K.; Smeeth, W. F.
—— ——, New South Wales.—Andrews, E. C.; Pittman, E. F.
—— ——, New York.—Card, G. W.; Cushing, H. P.; Schneider, P. F.; Smyth, C. H., Jun.
—— ——, New Zealand. — Dieseldorff, A.; Fox, E.; Mulgan, E. K.; Park, J.
—— ——, ore deposits &.—Heusler, C.
—— ——, Oregon.—Calkins, F. C.
—— ——, Perim I.—Raisin, C. A.
—— ——, Peru.—Raimondi, A., &c.

Igneous rocks, Phlegræan Fields. — Manasse, E.
—— ——, plasticity of.—Graber, H. V.
—— ——, Portugal. — Souza-Brandão, V. de.
—— ——, Quebec.—Dresser, J. A.
—— ——, Queensland. — Andrews, E. C.; Rands, W. H.
—— ——, Rumania.— Butzureanu, V. C.; Nicolau, T.
—— ——, Saxony.—Reinisch, R.
—— ——, Scotland. — Flett, J. S.; Geikie, Sir A.; Hinxman, L. W., &c.
—— ——, Siberia (E.). — Washington, H. S.
—— ——, Sicily.—Viola, C.
—— ——, Silesia.—Sachs, A.
—— ——, Skye, I. of, & Westmoreland. —Harker, A.
—— ——, Somerset.—Balch, H. E.
—— ——, Styria.—Ippen, J. A.; Sigmund, A.
—— ——, Switzerland.—Bodmer-Beder, A.
—— ——, Tasmania.—Petterd, W. F.; Stephens, T.; Twelvetrees, W. H.
—— ——, Thuringia. — Luedecke, O.; Schlegel, K.; Wichdorff, H. H. von.
—— ——, Tyrol.—Gordon, M. M. O.; Hammer, W.; Romberg, J.
—— ——, Tyrone.—Barrow, G.
—— ——, Victoria (Austral.)—Gregory, J. W.; Mennell, F. P.; Stirling, J.
—— ——, Washington.—Landes, H.
—— ——, Würtemberg. — Knebel, W. von.
—— ——, Yorkshire.—Hughes, T.McK.
——. *See also* Andesite, Lavas, Volcanoes, &c.
Igoceras.—Weller, S.
Iguanodons, Bernissart. — Van den Broeck, E.
Ijolite.—Washington, H. S.
Ilfeld (Harz).—Luedecke, O.
Ille-et-Vilaine (France).—Barrois, C.; Kerforne, F.; Lebesconte, P.
Illinois (U.S.A.). — Sellards, E. H.; Weller, S.; Willmott, A. B.
Illyrian Archipelago (Adriatic). — Waagen, L.
Ilm R. (Weimar).—Michael, R.
Ilmenau (Thuringia).—Boulenger, C.
Ilmenite.—Sustchinski, P. von.
Ilvaite.—Bœggild, O. B.
Imola (Emilia).—Clerici, E.
Implements, flints & stone.—Bancks, G. W.; Bell, A. M.; Bennett, F. J.; Bullen, R. A.; Cortázar, D. de; Dieseldorff, A.; Frenzel, A.; Garson, J. G., &c.; Hamy, T. E.; Harrison, E. R.; Jervis, W. P.; Jones, T. R., &c.; Layard, N. F.; Marshall, A. B.; Monckton, H. W.; Read, C. H.; Reid, C.; Repelin, J.; Rutot, A.; Warren, S. H.; Williston, S. W.
——, mineral condition & age.—Warren, S. H.
——. *See also* Eoliths.
Inclusions, igneous rock.—Lacroix, A.
——, Tiree marble. — Coomáraswámy, A. K.
India.—Clarke, R. W.; Dunstan, W. R.; Frech, F.; Griesbach, C. L.; Grundy, J.; Montessus de Ballore, F. de; Oldham, R. D.; Parkinson, J.; Reader, G. F.; Stephens, F. J.; Warth, H.; Zeiller, R.
——. *See also* Mysore, &c.
——, Portuguese.—Macedo, J. de.
Indian Ocean.—Chapman, F.
Indian Territory (U.S.A.).—Adams, G. I.; Taff, J. A., &c.
Indiana.—Jones, T. R.; Matthew, G. F.
Indiana (U.S.A.). — Cumings, E. R.; Edwards, J. J.; Elrod, M. N.; Kindle, E. M.; Macbeth, W. A.; Marsters, V. F.; Moore, J., &c.; Newsom, J. F.; Richardson, G. B.; Youse, L.
Indo-China, French.—Pelatan, L.
Indwe (Cape Colony).—Anon., 32.
Inferior Oolite. *See* Oolite & Jurassic.
Infundibulum.—Ortmann, A. E.
Infusoria, Carboniferous.—Renault, B.
Ingleborough (Yorks). — Hughes, T. McK.
Inkpen (Berks).—White, H. J. O.
Inn Valley, lower (Tyrol).—Wæhner, F.
Innsbruck (Tyrol).—Penck, A., &c.
Inoceramus.—Clerici, E.; Elbert, J.; Hill, R. T.; Janensch, W.; Liebus, A., &c.; Quaas, A.; Sturm, F.
—— -beds, Brunswick.—Wollemann, A.
—— —— ——, Galicia. — Friedberg, W.; Grzybowski, J.
Insects, Carboniferous. — Peach, B. N.; Pocock, R. I.; Thevenin, A.
——, Jurassic.—Radcliffe-Grote, A.
——, Quaternary.—Bell, A. M.; Buckman, S. S., &c.; Radcliffe-Grote, A.
——, Tertiary.—Meunier, F.; Pampaloni, L.; Radcliffe-Grote, A.; Rutot, A.
Interglacial land-level changes.—Coleman, A. P.
Interhippus.—Ameghino, F.
Intumescens-zone, New York.—Clarke, J. M.
Inverness (Scotland). — Davison, C.; Teall, J. J. H., &c.
Iona I. (Scotland).—Coomáraswámy, A. K.
Iowa (U.S.A.).—Calvin, S.; Hann, F.; Keyes, C. R.; Sardeson, F. W.; Shimek, B.; Udden, J. A.; Weller, S.
Ipswich (Suffolk). — Layard, N. F.; Shirley, J.
Ireland, bogs.—Anon., 45; Johnson, T.; Præger, R. Ll.
——, Boulder-Clay fauna.—Wright, J.
——, Geological Survey. *See* Geological Survey.
——, gold.—Maclaren, J. M.
——, minerals.—Seymour, H. J.
—— (N.E.).—Christen, —; Clark, R.
——, structure of. — Cole, G. A. J.; Kinahan, G. H.; Machenry, A.

Ireland, yew in.—Conwentz, H.
——. *See also* Antrim, Caverns, Cork, Jurassic, &c.
Iridosmine, British Columbia.—Kemp, J. F.
Irish red deer.—Barrett-Hamilton, G. E. H.
Irkuskan, Mt. (Orenburg). — Kovalev, P.
Irkutsk (Siberia).—Gagel, C.
Iron, Austria-Hungary.—Přiwoznik, E.
——, Belgium.—Libert, J.
——, Brazil.—Derby, O. A.
——, Cuba.—Birkinbine, J.
——, fluorine &.—Zalinski, E.
——, France.—Caraven-Cachin, A.
——, Great Britain.—Atkinson, J. B., &c.; Foster, C. Le N., &c.
——, Lorraine.—Villain, F.
——, Luzon I.—Rinne, F.
——, meteoric.—Meunier, St.; Schlegel, K.
——, Michigan & Minnesota, origin of. —Spurr, J. E.; Van Hise, C. R.
——, Minnesota.—Winchell, N. H.
——, Mysore.—Sambasiva Iyer, V. S.; Smeeth, W. F.
——, Newfoundland.—Howley, J. P.
——, New Jersey.—Kuemmel, H. B., &c.
——, New South Wales.—Jaquet, J. B.
——, New York.—Crosby, W. O.
—— -ores, magnetic.—Rinne, F.
——, Peru.—Torrico-y-Mesa, J.
——, Piedmont.—Novarese, V.
——, Portugal.—Albuquerque d'Orey, F. de; Werneke, —.
——, Russia. — Head, A. P.; Koniuskevski, L.; Kovalev, P.; Krasnopolski, A.
——, Siberia.—Gagel, C.
——, Spain.—Klockmann, F.; Lozano, R. S.; Mallada, L.
——, Sweden.—Blomberg, A,; Petersson, W.
——, Tanganyika L.—Langhans, C.
——, Tasmania. — Twelvetrees, W. H.; Wallace, W. H., &c.
——, Thuringia.—Schlegel, K.
——, United States &c.—Birkinbine, J.
—— ——. *See also* Michigan, &c.
——, Washington (U.S.A.). — Landes, H.; Shed, S.
——, Wisconsin.—Van Hise, C. R.
——. *See also* Hæmatite, Titaniferous, &c.
Ischl (U. Austria).—Aigner, A.
Ischyodus.—Sauvage, E.
Iseo, Lake (Lombardy).— Baltzer, A.; Mœbus, B.; Salmojraghi, F.; Tornquist, A.
Isère (Dauphiné).—Muller, —.
Iserlohm (Westphalia). — Denckmann, A.
Iskagan Bay (Siberia).—Washington, H. S.
Isocardia.—Brœgger, W. C., &c.; Dainelli, G.; Ravn, J. P. J.
Isochilina & *Isotelus.*—Ruedemann, R.
Isocyprina.—Loriol, P. de, &c.
Isostasy. *See* Gravity.
Isostylops & *Isutætus.* — Ameghino, F.
Itacolumite.—Hogg, E. G.
Italy, dust-fall of 1901.—Hellmann, G., &c.
——. *See* Liguria, Umbria, Volcanoes, &c.
Ith Mts. (Brunswick).—Menzel, P.
Itieria.—Broili, F.; Vogel, F.
Itzehoe (Holstein).—Oppenheim, P.

Jackson-beds, Alabama.—Casey, T. L.
Jade.—Grundy, J.
Jadeite.—Bodmer-Beder, A.; Zambonini, F.
Jaén (Spain).—English, G.
Japan.—Anon., 35; Kochibe, T., &c.; Milne, J.; Nardin, E. W.; Ōmori, F.; Richthofen, F. von; Rœsler, H.; Yamasaki, N.; Yoshiwara, S., &c.
Jarosite.—Hillebrand, W. F., &c.
Jasper, Anglesey.—Greenly, E.
Jászfalu (Hungary).—Timkó, E.
Java (D.E.I.).—Amoedo, O.; Houwink, L.
Jersey (Channel Is.).—Naylor, W.
Jerusalem (Palestine).—Wilson, Sir C. W.
Jodyrite.—Spencer, L. J.
John-Day region (Oregon).—Calkins, F. C.; Merriam, J. C.
Joplin district (Mo.).—Horton, A.
Jordan Basin (Silesia).—Sachs, A.
Jordan Creek (Queensl.).—Ball, L. C.
Jordan Valley (Palestine).—Anon., 45.
Juglans.—Engelhardt, H.
Jukes, Mt. (Tasm.).—Twelvetrees, W. H.
Julian Harbour (Greenland).—Bœggild, O. B.
Jupiter mine flooding, Brüx. — Heurverges, R.
Jura, Dep. (France).—Chanel, E.; Fournier, E.
——, Franconian.—Schlosser, M.
——, French.—Termier, P.
——, Swiss.—Buxtorf, A.; Geikie, J.; Greppin, E.; Huene, F. von; Loriol, P. de; Muehlberg, F.; Rollier, L.; Struebin, K.
Jurassic, Africa (S.).—Stromer, E.
——, Alsace.—Janensch, W.
——, Argentina.—Roth, S.
——, Bavaria.—Koken, E.; Maas, O.; Pompeckj, J. F.; Schlosser, M.
—— boulders, Denmark.—Madsen, V.
——, Colorado.—Riggs, E. S.
——, Dakota.—Hovey, E. O.
——, France.—Bergeron, J., &c.; Collot, —; Fournier, E.; Grossouvre, A. de; Guébhard, A.; Munier-Chalmas, —; Nicklès, R.; Peron, A.; Sauvage, H. E.; Sayn, G.
——, Galicia, Poland, & Silesia.—Rehbinder, B. von.

Jurassic, Gloucestershire & Wiltshire.—Reynolds, S. H., &c.
——, Hanover.—Hoyer, —; Menzel, H.
——, Ireland.—Bell, R.
——, Italy.—Angelis d'Ossat, G. de; Levi, G.; Lotti, B.
——, Leicestershire.—Rœchling, H. A.
——, Mexico.—Johnson, D. W.
——, Molucca Is.—Bœhm, G.
——, Moravia.—Remeš, M.
——, North America.—Fraas, E.
——, Oxfordshire.—Bell, A. M.; Blake, J. F.; Walford, E. A.
——, Skye (I. of).—Woodward, H. B.
——, Spain.—Mallada, L.
——, Sutherland.—Blake, J. F.; Bonney, T. G.
——, Switzerland.—Greppin, E.; Huene, F. von; Loriol, P. de; Newton, R. B.; Struebin, K.; Tobler, A.
——, Worcestershire.—Richardson, L.
——, Würtemberg.—Haizmann, W.; Lœrcher, O.
——, Wyoming.—Granger, W., &c.; Loomis, F. B.
——, Yorkshire.—Sheppard, T.; Walford, E. A.
——. *See also* Brachiopoda, Lias, &c.
Jutland (Denmark).—Davis, P.
Juvavionautilus.—Mojsisovics, E. von.

Kadali R. (Siberia).—Gerasem, A. P.
Kadi-Kalé (Asia Minor).—Achiardi, G. d'.
Kaimanawa Mts. (N.Z.).—Mackay, A.
Kaiseraugst (Basel).—Struebin, K.
Kaiserstuhl (Baden).—Meyer, G.
Kalahari (S. Africa).—Kalkovski, E.
Kalgoorlie (W. Austral.)—Howell, A.; Lidgey, E.; Moss, F.
Kalmar (Gotland).—Munthe, H.
Kamchatka (Siberia).—Tuczeck, P.
Kandy (Ceylon).—Coomáraswámy, A.K.
Kangaroo, Quaternary.—Gregory, J. W.
Kangchenjunga (Himalayas).—Freshfield, D. W.; Garwood, E. J.
Kansas (U.S.A.).—Adams, G. I.; Crane, W. R.; Chamberlin, T. C.; Hatcher, J. B.; Johnson, W. D.; Keyes, C. R.; Merrill, G. P.; Newell, F. H.; Prosser, C. S.; Upham, W.; Williston, S. W.; Winchell, N. H.
Kaolin, distribution & origin of.—Rœsler, H.
Karachi (India).—Griesbach, C. L.
Karaman (Asia Minor).—Schaffer, F.; Toula, F.
Karawanka Alps (Austria).—Ampferer, O.
Karlsbad (Bohemia).—Rœsler, H.
Karlskoga (Svealand).—Blomberg, A.
Karoo Beds.—Gibson, W.
—— conglomerate. *See also* Dwyka.
Karroo, The (Cape Colony).—Ritso, B. W.; Stromer, E.
Karst (Austria).—Moser, L. K.
Karst-phenomena.—Anon., 37; Crammer, H.
Karstädt (W. Prussia).—Weissermel, W.
Karwendel Mts. (Tyrol).—Ampferer, O.
Kassubei (E. Prussia).—Wolff, W.
Katanga (Congo Free State).—Lemaire, C.
Katosira.—Gortani, M.
Katzenbuckel (Hesse).—Salmon, W.
Kau (Hawaii).—Emerson, J. S.
Kawau I. (N.Z.),—Baker, W. H.
Kaweka Mts. (N.Z.).—Mackay, A.
Keckia.—Lorenz, T.
Keewatin (Canada).—Bell, R., &c.
Keewatin Series.—Hall, C. W.
Kegworth (Leicester).—Rœchling, H. A.
Keish caves (Sligo).—Præger, R. Ll., &c.; Scharff, R. F.
Kellerwald (Hesse).—Denckmann, A.
Kellia.—Brœgger, W. C., &c.; Cossmann, M.
Keloet volcano (Java).—Houwink, L.
Kent.—Hall, A. D., &c.; Holmes, T. V., &c.; Jukes-Browne, A. J.; Newton, E. T.; Osman, C. W.; Whitaker, W.
Kentallenite.—Anon., 64; Lœwinson-Lessing, F.
KENT'S Cavern (Torquay).—Hunt, A. R.; Watson, J. A.
Kentucky (U.S.A.).—Fœrste, A. F.
Kentville (N.S.).—Ami, H. M.
Kenya (Eq. Africa).—Finckh, L.
Kerch (Crimea).—Andrusov, N.; Pantocsek, J.; Vernadski, V. S., &c.
Keronina.—Renault, B.
Kerry (Ireland).—Gardiner, C. I., &c.
Kersanton (Britanny).—Barrois, C.
Kerunia.—Oppenheim, P.; Vinassa de Regny, P.
Keswick (Cumberland).—Seeley, H. G.
Kettenjura (Switzerland).—Steinmann, G.
Keuper, Basel.—Struebin, K.
—— coal, Teutoburgerwald.—Schlueter, C.
——, Leicester.—Rœchling, H. A.
——, Staffordshire.—Woodward, A. S.
——. *See also* Trias.
Kew (Surrey).—Chree, C.
Keweenawan Series.—Hall, C. W.
Keweenawite.—Kœnig, G. A.
Khasi Hills (Assam).—Montessus de Ballore, F. de.
Kherson (Russia).—Pavlov, M.
Kiandra Lead (N.S.W.).—Andrews, E. C.
Kicking-Horse R. (Canada).—Woodward, H.
Kieslingswald (Silesia).—Sturm, F.
Kilauea (Hawaii).—Bishop, S. E.
Kilbrickenite.—Prior, G. T.
Kildonan (Sutherland).—Maclaren, J. M.
Kilimanjaro (Equatorial Africa).—Becker, G.; Finckh, L.
Killin (Perth).—Macnair, P.
Kimeridge Clay, Speeton.—Sheppard, T.
Kimeridgian, France.—Sauvage, H. E.

Kinderhook Formation, Missouri. — Weller, S.
KING, C. *See* Emmons, S. F.; Woodward, H. B.
Kingsteps (Nairn).—Mackie, W.
Kintbury (Berks).—White, H. J. O.
Kinzigite-gneiss.—Rosenbusch, H.
Kionelasma.—Simpson, G. B.
Kittalinny Valley (N.J.).—Kuemmel, H. B., &c.
Kiushiu I. (Japan). — Richthofen, F. von.
Kizelovskaya (Perm).—Duparc, L., &c.
Klado-Schlan coal-basin (Bohemia). — Weithofer, K. A.
Klagstorp (Scania).—Moberg, J. C.
Klamath Mts. (Or.).—Anderson, F. M.; Diller, J. S.; Hershey, O. H.
Klaprothine.—Lacroix, A.
Klar R. (Svealand).—Dahl, C. G.
Klerksdorp (Transvaal).—Smith, W.
Klippen, Carpathians.—Mrazec, L., &c.; Sevostos, R.
Klobuk (Herzegovina).—Bukowski, G. von.
Knemoceras.—Krause, P. G.
Knorria.—Potonié, H.
Knoydart formation.—Ami, H. M.
Knysna (Cape Colony).—Schwarz, E. H. L.
Kobya.—Loriol, P. de, &c.
Kochendorf (Würtemberg).—Koken, E.
Kochia.—Drevermann, F.; Maurer, F.
Kœnenite.—Rinne, F.
Kola Peninsula (Russia).—Ramsay, W.
Kolar (Mysore).—Carr, F. E.; Primrose, A.; Smeeth, W. F.
Költschen (Brandenburg).—Korn, J.
Komarom (Hungary).—Timkó, E.
Kommern Lakes (Bohemia). — Muehlhauser, A.
Kondiloceras.—Fucini, A.
Königsgnad (Hungary).—Hœrnes, R.
Kontiolak (Finland).—Frosterus, B.
Kootenay (B.C.).—Prior, E. G.
Korjenici (Herzegovina). — Bukowski, G. von.
Körmöczbánya (Hungary).—Mœsz, G.
Kosciusko Plateau (N.S.W.). — David, T. W. E., &c.
Kostej (Hungary).—Bœttger, O.
Koster I. (Gotland).—Geer, G. de.
Kosva (Urals).—Duparc, L.
Kosvinski (Perm).—Duparc, L., &c.
Kosvite.—Duparc, L., &c.; Lœwinson-Lessing, F.
Kosztesd (Hungary).—Halaváts, J.
Koyukuk R. (Alaska). — Schrader, F. C.
KRAFFT, A. VON. *See* Diener, C.
Krapina (Croatia).—Klaatsch, H.
Krasnovodsk (Transcaspian). — Andrusov, N.
Krassó-Szöreny (Hungary).—Bœttger, O.
Kremnitz (Hungary).—Anon., 23.
Krivoi Rog (Kherson).—Head, A. P.; Pavlov, M.
Kuban (S. Russia).—Sach, A.; Vernadski, V. S., &c.
Kulaite & Kullaite.—Lœwinson-Lessing, F.
Kunetitz Mts. (Bohemia). — Hinterlechner, K.
Kurdistan (Turkish).—Percy, Earl.
Kurkur Oasis (Egypt).—Ball, J.
Kursk Gov. (Russia). — Derjavin, A.; Palibin, I. V.
Kurth (Hungary).—Timkó, E.
Kushite.—Lœwinson-Lessing, F.
Küstrin (Brandenburg).—Tietze, O.
Kutorgina.—Groom, T. T.
Kutten (E. Prussia).—Krause, P. G.
Kuznetzk (Tomsk).—Kayer, E.; Peetz, H. von; Zeiller, R.
Kvikkjokk Mt. (N. Bothnia).—Holmquist, P. J.
Kyffhäuser (Thuringia).—Luedecke, O.

Labrador (Canada).—Daly, R. A.
Labradorite.—Daly, R. A.
Laccolites, Dakota.—Jaggar, T. A., Jun.
——, Ireland.—Kinahan, G. H.
Laccophyllum.—Simpson, G. B.
‘Lacisian,’ use of term.—Bittner, A.
LACOE, R. D. *See* Hayden, H. E.
Lacuna.—Brœgger, W. C., &c.; Cossmann, M.
Ladoga, L. (Russia).—Frosterus, B.
Lævicardium & *Lamellaria.*—Brœgger, W. C., &c.
Lafkenia.—Roth, S.
Lagena.—Procházka, V. J.; Reade, T. M., &c.; Schubert, R. J.
Lageniastrum.—Renault, B.
Lagenipora.—Maplestone, C. M.
Lägern Mt. (Aargau, &c.).—Muehlberg, F.
Lagopus.—Hartz, N.
Lagorai (Tyrol).—Trener, G. B.
La Harpe (Kan.).—Crane, W. R.
Lake-dams, Pyrenees.—Belloc, É.
Lake District, English.—Harker, A.; Kendall, P. F.; Reade, T. M., &c.
—— ——. *See also* Cumberland, &c.
Lake-‘lime,’ plant.—Wesenburg-Lund, C.
Lake-marls, Indiana.—Youse, L.
——, Mecklenburg lakes. — Passarge, S.
Lakes, American Great. — Newell, F. H.
——, British.—Chumley, J.
——, esker.—Dryer, C. R.
——, Glarus alpine.—Blumer, S.
——, Italian (N.).—Tornquist, A.
——, Minnesota glacial.—Winchell, N. H.
——, North of England glacier-. — Dwerryhouse, A. R.; Kendall, P. F.
——, Svealand.—Dahl, C. G.
——, Transylvanian salt-.—Kalecsinski, A. von.
——, Wales (N.).—Lake, P.; Marr, J. E.; Strahan, A.

Lambydium.—Dainelli, G.
Lamellibranchiata, Carboniferous.—Sardeson, F. W.; Stobbs, J. T.; Weller, S.
——, Cretaceous. — Broili, F.; Burckhardt, C.; Choffat, P.; Dainelli, G.; Day, A. E., &c.; Elbert, J.; Frech, F.; Grœnwall, K. A.; Hilber, V.; Hill, R. T.; Hoyer, —; Liebus, A., &c.; Pâquier, V.; Quaas, A.; Ravn, J. P. J.; Redlich, K. A.; Rehbinder, B. von; Reid, C.; Stanton, T. W.; Stather, J. W.; Sturm, F.; Termier, P.; Wanner, J.; Wollemann, A.; Woods, H.
——, Devonian.—Clarke, J. M.; Drevermann, F.; Maurer, F.; Wood, E.
——, hinges of.—Reis, O. M.
——, Jurassic.—Frech, F.; Janensch, W.; Levi, G.; Loriol, P. de; Newton, R. B.; Roth, S., &c.; Schlosser, M.
——, Permian.—Frech, F.
——, Quaternary. — Brœgger, W. C., &c.; Hammarstrœm, R.; Madsen, V., &c.; Milthers, V.; Munthe, H.; Pallary, P.; Wesenberg-Lund, C.
——, shell-torsion in.—Nœtling, F.
——, Silurian.—Koken, E.; Peach, B. N.; Reed, F. R. C.; Ruedemann, R.; Sardeson, F. W.; Schuchert, C.
——, Tertiary.—Andrusov, N.; Ashby, E., &c.; Basedow, H.; Bœttger, O.; Cossmann, M.; Dainelli, G.; Deninger, K.; Dormal, V.; Hœrnes, R.; Hutton, F. W.; Ihering, H. von; Jooss, C.; Lœrenthay, E.; Oppenheim, P.; Ortmann, A. E.; Pallary, P.; Procházka, V. J.; Sacco, F.; Schaffer, F.; Simionescŭ, J.; Stefani, C.; Toula, F.; Trentanove, G.
——, Triassic.—Bittner, A.; Diener, C.; Frech, F.; Giattini, G. B.; Gortani, M.; Sacco, F.; Salomon, W.; Smith, J. P.; Strahan, A., &c.; Vogel, F.; Waagen, L.
Lamna. — Leriche, M.; Priem, F.; Quaas, A.; Stefano, G. de; Stromer, E.
Lampterocrinus.—Weller, S.
Lancashire.—Dickinson, J.; Hall, H.; Jukes-Browne, A. J.; Pickstone, W.; Reade, T. M., &c.
Lancaster (N.Y.).—Wood, E.
Land, changes of level, Australia. — Andrews, E. C.; Thomson, W. C.
——, ——, interglacial.—Coleman, A. P.
——, ——, Musselburgh.—Martin, R.
——, ——, Pacific.—Arber, E. A. N.; Park, J.; Stirling, J.; Thomson, W. C.
——, ——, Phlegræan Fields. — Guenther, R. T.
——, ——, Scandinavia.—Bonsdorff, A.; Holmboe, J.
Land-forms. — Anon., 37; Avebury, Lord; Frosterus, B.; Geikie, Sir A.; Geikie, J.
Landes, Les (France).—Engell, M. C.; Fabre, L. A.
Landres (Lorraine).—Villain, F.
Land's End (Cornwall).—Teall, J. J. H., &c.
Landslips, India.—Griesbach, C. L.
——, Massachusetts.—Cleland, H. F.
——, Somerset.—Laurence, W. K.
——, Ticino.—Heim, A.
Langenaubach (Wiesbaden). — Drevermann, F.
Långfall (Dalecarlia).—Beck, R.
Langhian.—Dainelli, G.
Languedoc (France).—Bergeron, J., &c.; Caraven-Cachin, A.; Collot, —; Depéret, C.; Dereims, A.; Grossouvre, A. de; Jacquemet, E.; Michel-Lévy, A.; Nicklès, R.; Peron, A.; Pompeckj, J. F.; Rouville, P. G. de; Sayn, G., &c.
Lansing (Kan.).—Chamberlin, T. C.; Upham, W.; Winchell, N. H.
Laon (Aisne).—Gosselet, J.; Michel-Lévy, A., &c.
Laos (Cameroons).—Lacroix, A.
Lapland.—Sarlin, E.
La Plata Mts. (Colo.).—Lakes, A.
Laramie formation, Nebraska.—Fisher, C. A.
—— Plains (U.S.A.).—Knight, W. C.
Laricopsis.—Hill, R. T.
Lariosaurus.—Johnston, R. M.
Lasæa.—Brœgger, W. C., &c.
Laterite, Mysore.—Primrose, A.; Smeeth, W. F.
Lauenburg (Prussia).—Meunier, F.
Laugerie-Haute (Dordogne).—Harlé, E.
Laumontite.—Fromme, J.
Laurentian (Baffinland).—Bell, R., &c.
Laurelia & *Laurus.*—Engelhardt, H.
Laurium (Greece).—Ernst, C. von.
Lausitz (Saxony).—Reinisch, R.
——, Lower (Prussia).—Keilhack, K.
Lava-domes, Vesuvius.—Mercalli, G.
Lavas, Auckland.—Fox, C. E.
——, Ecuador.—Reiss, W., &c.
——, Ernici volcano.—Viola, C.
——, Fife.—Geikie, Sir A.
——, Hawaii.—Hitchcock, C. H.
——, Iceland.—Pjetursson, H.; Prinz, W.; Stefansson, J.
——, Minnesota.—Hall, C. W.
Laziale volcano (Romagna).—Verri, A.
Lead, Algeria.—Coignard, —, &c.; Pelatan, L.
——, Carinthia.—Canaval, R.
——, Caucasus.—Bogdanovich, K.
——, Cumberland & Derbyshire.—Dickinson, J.
——, France. — Caraven - Cachin, A.; Coignard, —, &c.; Emmons, S. F.
——, Indo-China.—Pelatan, L.
——, Mendip Hills.—Morgans, T.
——, New South Wales. — Maclachlan, D. C.
——, Norway.—Vogt, J. H. L.
——, Peru.—Torrico-y-Mesa, J.
——, Styria.—Setz, W.

Lead, Tasmania.—Craze, J.; Waller, G. A.
——, United States, &c.—Kirchhoff, C.; Ransome, F. L.; Van Hise, C. R., &c.
Leake (Leicester).—Rœchling, H. A.
Leau-Rummen (Brabant).—Van den Broeck, E.
Leaze Burn (Ayrshire).—Smith, J.
Lebus (Brandenburg).—Tietze, O.
Lecanocrinus.—Weller, S.
Le Conte, J. *See* Anon., 7; Stevenson, J. J.
Leda.—Bittner, A.; Brœgger, W. C., &c.; Ortmann, A. E.; Procházka, V. J.; Quaas, A.; Stanton, T. W.; Trentanove, G.; Wanner, J.; Weller, S.
—— -clay.—Madsen, V., &c.
Ledi R. (Vorarlberg).—Blaas, J.
Ledopsis.—Maurer, F.
Ledouxite.—Gaubert, P.
Leghorn (Tuscany).—Trentanove, G.
Leguminosites.—Engelhardt, H.
Leicestershire.—Anon., 36; Browne, M.; Judd, J. W., &c.; Rœchling, H. A., &c.; Watts, W. W.
Leinster (Ireland).—Cole, G. A. J.
Leiocidaris & *Leiopleurus.*—Lambert, J.
Leiomyalina.—Frech, F.
Leiopteria & *Leptopora.*—Weller, S.
Leith Valley (Dunedin).—Park, J.
Lekythopora.—Maplestone, C. M.
Lelfunia.—Roth, S.
Léman, L. *See* Geneva, Lake of.
Lemurs, Quaternary.—Lorenz, L. von.
'Lemuria,' submerged.—Stirling, J.
Lena R. (Siberia).—Gerasem, A. P.
Lengholz (Carinthia).—Canaval, R.
Lenham Beds, Diestian &.—Harmer, F. W.: Van den Broeck, E.; Van Ertborn, O.
Leobersdorf (L. Austria).—Rzehak, A.
Leon (Spain).—Jones, J. A.; Œhlert, D. P.
Leonite.—Strandmark, J. E.
Lepas.—Hall, T. S.
Leperditia.—Holm, G., &c.; Jones, T. R.; Matthew, G. F.; Ruedemann, R.
Leperditiadæ, Cambrian.—Groom, T. T.
Lepidocarpon.—Bommer, C.; Scott, D. H.
Lepidocoleus.—Ruedemann, R.
Lepidocyclina.—Martin, K., &c.; Newton, R. B., &c.
Lepidodendron.—Kidston, R.; Krasser, F.; Lorenz, T.; Nathorst, A.; Potonié, H.; Seward, A. C.; Zeiller, R.
Lepidodiscus.—Clarke, J. M.
Lepidolite.—Bowman, H. L.
Lepidophloios.—Kidston, R.; Weiss, F. E.
Lepidophyllum.—Guerich, G.
Lepidopleurus & *Lepton.*—Brœgger, W. C., &c.
Lepidoptera, fossil.—Radcliffe-Grote, A.
Lepidosteus.—Douglas, E.; Merrill, G. P.; Priem, F.
Lepidostrobus.—Potonié, H.
Lepidotus.—Lambe, L. M.; Sauvage, E.
Lepontine Alps. *See* Alps.
Lepralia.—Maplestone, C. M.
Leptæna.—Dun, W. S.; Weller, S.
Leptobolus.—Ruedemann, R.
Leptobos.—Schlosser, M.
Leptochlorite.—Fromme, J.
Leptocœlia.—Clarke, J. M.
Leptodesma.—Wood, E.
Leptodomus.—Drevermann, F.; Maurer, F.
Leptoria.—Wanner, J.
Leptothyra.—Ortmann, A. E.
Leptynolite, Donegal.—Cole, G. A. J.
Lesina I. (Dalmatia).—Kornhuber, A.
Lesse R. (Namur).—Van den Broeck, E.
Letmathe (Westphalia).—Denckmann, A.
Leuca, Capo di (Apulia).—Dainelli, G.
Leuciscus.—Turner, H. W.
Leucite-lava, Central Italy.—Anon., 61.
Leucite-tinguaite.—Wolff, J. E.
Leucochroa.—Pallary, P.
Levantina Valley (Ticino).—Garwood, E. J.
Leven (Fife).—Kirkby, R.
Lias, Argentina.—Roth, S., &c.
——, Basel.—Struebin, K.
——, Bavaria.—Schlosser, M.
——, Dorset.—Jukes-Browne, A. J.
——, Gt. Ayton.—Barrow, G.
——, Hanover.—Hoyer, —; Pálfy, M. von.
——, Ireland.—Bell, R.
——, Leicestershire.—Rœchling, H. A.
——, Oxfordshire.—Walford, E. A.
——, Spain.—Mallada, L.
——, Tuscany.—Fucini, A.; Levi, G.; Lotti, B.
——, Umbria.—Angelis d'Ossat, G. de.
——, Yorkshire.—Walford, E. A.
——. *See also* Jurassic.
Libyan Desert (Egypt).—Beadnell, H. J. L.; Quaas, A.; Wanner, J.
Libycoceras.—Quaas, A.
Lichas.—Reed, F. R. C.
Lichenopora.—Pantocsek, J.
Liége (Belgium).—Bourgeat, —; Destinez, P.; Doudou, E.; Forir, H.; Fourmarier, P.; Fraipont, J.; Lohest, M.; Questienne, P.; Van den Broeck, E.
Liesthal (Basel).—Huene, F. von.
Lightning, geology &.—Fredholm, K. A.
Lignite, Ain.—Boistel, A.
——, Hérault.—Renault, B.
——, Madagascar.—Pelatan, L.
——, Sardinia.—Bosco, C.
——, Turkey.—Anon., 65.
——, Tuscany.—Ugolini, R.
Liguria (Italy).—Airaghi, C.; Checchia, G.; Issel, A.; Rovereto, G.; Sacco, F.
Lillehammer (Norway).—Muenster, T.
Lillia.—Simionescu, J.

Lillö I. (Scania).—Hennig, A.
Lima.—Bittner, A.; Brœgger, W. C., &c.; Gortani, M.; Janensch, W.; Loriol, P. de, &c.; Ravn, J. P. J.
Limax.—Jooss, C.
Limburg (Belgian).—Forir, H.; Habets, A.; Habets, P.; Harzé, E.; Lohest, M.; Mourlon, M.; Van den Broeck, E.; Van Ertborn, O.
Limburgite, Bavaria.—Sœllner, J.
——, Fife.—Geikie, Sir A.
——, Tasmania.—Petterd, W. F.
'Lime'-deposits in lakes.—Passarge, S.
——, hydroborate of.—Hoskold, C. A. L.
——, phosphate-soils &.—Sutherst, W. F.
Limestone, Alabama white.—Casey, T. L.
——, Chinese 'Pagoda Stone.'—Gerrard, J.
Limestones, Aar massif.—Baltzer, A.
——, Banffshire.—Hinxman, L. W., &c.
——, Carboniferous, Belgium.—Anon., 63; Destinez, P.; Fourmarier, P.
——, ——, metamorphosed.—Barnes, J.
——, ——, Somerset.—Anon., 58; Balch, H. E.
——, ——, West Lothian.—Cadell, H. M.
——, ——, Yorkshire.—Rhodes, J.; Wellburn, E. D.
——, Ceylon crystalline.—Callaway, C.; Coomáraswámy, A. K.
——, Danish.—Wesenburg-Lund, C.
——, Devonian, United States.—Clarke, J. M.; Fœrste, A. F.
——, Egyptian Tertiary.—Chapman, F.
——, Fife.—Geikie, Sir A.
——, Gotland.—Holm, G., &c.; Moberg, J. C.
——, Harz 'quartzite.'—Lotz, H.
——, Laurentian, Canada.—Bell, R.
——, Mackay (Queensl.).—Dunstan, B.
——, Madagascar.—Lacroix, A.
——, Magnesian cellular.—Abbott, G.
——, Missouri.—Keyes, C. R.
——, Moravia.—Remeš, M.
——, New Jersey.—Kuemmel, H. B.
——, Peru.—Raimondi, A., &c.
——, Sardinia.—Lovisato, D.
——, Saxony.—Mammen, F.
——, Silurian.—Fœrste, A. F.
——, Tiree crystalline.—Coomáraswámy, A. K.
——, water in Jura district.—Fournier, E.
——, weathering.—Anon., 37; Crammer, H.
——. *See also* Caverns, &c.
Limmat R. (Switzerland).—Preller, C. S. Du R.
Limnæa.—Cossmann, M.; Lœrenthay, E.; Pallary, P.
Limnæus.—Dainelli, G.
Limnenetes.—Douglass, E.
Limnocardium.—Hœrnes, R.; Lœrenthay, E.
Limonite, Danish.—Wesenburg-Lund, C.
Limopsis & *Liotia.*—Ortmann, A. E.
Limoptera.—Drevermann, F.
Limur, — de. *See* Lacroix, A.
Linares (Jaén).—English, G.
Lincoln (Lincolnshire).—Anon., 69.
Lincolnshire.—Gibson, W.; Griffith, P.; Hill, W.; Jukes-Browne, A. J.; Preston, H.; Sheppard, T.
Lindstrœm, G. *See* Bather, F. A.
Lindstrœmia.—Počta, P.
Lindera.—Hill, R. T.
Lingula.—Groom, T. T., &c.; Weller, S.
Lingulella & *Linnarssonia.*—Groom, T. T., &c.
Lingulina.—Chapman, F.
Linthia.—Airaghi, C.; Oppenheim, P.
Linz (U. Austria).—Grabbe, H. V.; Handmann, R.
Linz (Rh.-Prussia).—Elsden, J. V., &c.
Liopistha.—Quaas, A.
Liospira.—Ruedemann, R.
Liostracus.—Grœnwall, K. A.
Liparite, Styria.—Sigmund, A.
Lippe (Germany).—Elbert, J.
Listriodon.—Schlosser, M.
Lithgow (N.S.W.).—Cardew, J. H.
Lithia-minerals.—Arsandaux, H.
Lithobia.—Koken, E.
Lithodomus.—Ravn, J. P. J.
Lithographic stone, Bavaria.—Angermann, E.
—— ——, French.—Anon., 59.
—— ——, Solenhofen.—Maas, O.
—— ——, Turkey.—Anon., 65.
—— ——, United States.—Kuebel, S.
Lithophaga.—Weller, S.
Lithophagus.—Bittner, A.
Lithothamnium.—Newton, R. B.
Lithotrochus.—Roth, S., &c.
Litsæophyllum.—Deane, H.
Little Falls (Minn.).—Upham, W.
Little River Group.—Matthews, G. F.
Littoral drift. *See* Drift.
Littorina.—Brœgger, W. C., &c.; Loriol, P. de, &c.; Schlosser, M.
——-clay, Sweden.—Munthe, H.
Lituites.—Holm, G., &c.
Liverpool (Lancs).—Hall, H.
Livonia (Baltic Prov.).—Schmidt, F.
Lizard (Cornwall).—Lowe, H. J.
Lobites.—Mojsisovics, E. von.
Lobocrinus.—Rowley, R. R.
Lobostoma.—Wanner, J.
Lockton Moor (Yorks).—Stather, J. W.
Lodel Creek (Penn.).—Lyman, B. S.
Lœso (Denmark).—Davis, P.
Lœss, Belgium.—Fourmarier, P., &c.
——, Europe (Central).—Penck, A., &c.
——, Iowa.—Calvin, S.; Shimek, B.; Udden, J. A.
——, Mississippi.—Shimek, B.
——, Missouri.—Marbut, C. F.
——. *See also* Drift.

Loganograptus.—Elles, G. L., &c.
Loire Basin (France). — Coste, E.; Dobers, —, &c.; Friedel, G.
Loitsch (Carniola).—Bittner, A.
Lomaphorelus.—Ameghino, F.
Lombardy (Italy).—Alessandri, G. de; Airaghi, C.; Anon., 22; Baldacci, L., &c.; Baltzer, A.; Brugnatelli, L.; Cacciamali, G. B.; Cermenati, M.; Clerici, E.; Flores, E.; Mariani, E.; Mœbus, B.; Rœsler, H.; Salmojraghi, F.; Tacconi, E.; Toldo, G.; Tommasi, A.; Tornquist, A.
Lomond, Ben (Tasm.).—Waller, G. A.
London Basin.—Jukes-Browne, A. J.; Whitaker, W.; White, H. J. O.
—— Clay, Hants.—Reid, C.
—— ——, Sheppey.—Crick, G. C.
Long I. (N.Y.).—Woodworth, J. B.
Longfell Gill (Westmoreland).—Marr, J. E.
Lonkus.—Roth, S.
Lonzée (Namur).—Rutot, A.
Loo Choo Is. (N. Pacific).—Newton, R. B., &c.; Yoshiwara, S.
Lophiodon. — Bosco, C.; Depéret, C.; Omboni, G.; Schlosser, M.
Lophiodonticulus.—Ameghino, F.
Lophiotherium.—Depéret, C.
Lopholasma.—Simpson, G. B.
Lophospira.—Donald, J.
Lorenzago (Venetia).—Longhi, P.
Lorica & *Loricella.*—Ashby, E., &c.
Lorraine (France).—Dormal, V.; Villain, F.
—— Group, Canada.—Wilson, W. G.
—— ——, Cincinnati.—Nickles, J. M.
Lot (France).—Boule, M.
Lot-et-Garonne (France).—Sauvage, H. E.
Lothians (Scotland). — Cadell, H. M.; Dron, R. W.
Lotrite.—Gaubert, P.
Louisiana (U.S.A.).—Adams, G. I.
Louzal (Alemtejo). — Albuquerque d'Orey, F. de.
Lovčen (Montenegro).—Giattini, G. B.
Lovcenipora.—Giattini, G. B.
Lovenella, *Lucinopsis*, & *Lyonsia.*—Brœgger, W. C., &c.
Lowestoft & Yarmouth Ry. cutting.—Woodward, H. B.
Loxoconcha.—Chapman, F.
Loxonoma.—Drevermann, F.; Gortani, M.; Sardeson, F. W.; Schlosser, M.; Weller, S.
Lozoya Valley (Madrid).—Macpherson, J.
Lübeck (N. Germany).—Struck, R.
Lucina.—Brœgger, W. C., &c.; Cossmann, M.; Dainelli, G.; Deninger, K.; Ortmann, A. E.; Procházka, V. J.; Quaas, A.; Ravn, J. P. J.; Reis, O. M.; Sacco, F.; Stefano, C. de; Trentanove, G.; Wanner, J.
Lugano (Ticino).—Mariani, E.
Lunatia.—Brœgger, W. C., &c.; Stanton, T. W.
Lüneburg (Hanover).—Mueller, G.
Lune R. (Lancs).—Reade, T. M., &c.
Lungen, Lake (Svealand).—Dahl, C. G.
Lunka (Hungary). — Telegd, L. R. von.
Lunulicardium.—Wood, E.
Lutetian, Aisne.—Leriche, M.
——, Seine Valley.—Thomas, H.
——. *See also* Tertiary.
Lutraria.—Ortmann, A. E.
Luxemburg, Belgian.—Dormal, V.
Luzon I. (Philippine Is.).—Rinne, F.
Lycaon.—Studer, T.
Lychen, Lakes of (Brandenburg).—Passarge, S.
Lycopodites.—Kidston, R.
LYELL, Sir CHARLES. *See* Hunt, A. R.
Lyginodendron.—Arber, E. A. N.
Lyme Regis (Dorset).—Jukes-Browne, A. J.; Woodward, H. B.
Lys R. (Flanders).—Rutot, A.
Lysorophus.—Case, E. C.
Lytoceras.—Fucini, A.; Janensch, W.; Loriol, P. de, &c.; Sarasin, C.; Sayn, G.

Macdonnell Ranges (W. Austral.). — Smith, H. V.
Macedon, Mt. (Victoria).—Gregory, J W.
Macedonia (Turkey).—Cvijič, J.; Hilber, V.
MACENERY, J. *See* Watson, J. A.
Macerata (Italy).—Moderni, P.
Machairodus.—Boule, M.; Lydekker, R.; Schlosser, M.; Seguenza, L.
Machimosaurus.—Sauvage, E.
Machlydotherium.—Ameghino, F.
Mackay (Queensl.).—Dunstan, B.
Mackenzie (Canada).—Bell, R., &c.
Mackenzie R. (Queensl.). — Dunstan, B.
Macoma.—Brœgger, W. C., &c.
MACPHERSON, J. *See* Calderon, S.
Macrepestius.—Hill, R. T.
Macrochilina.—Clarke, J. M.
Macrodon.—Bittner, A.; Hoyer, —; Ravn, J. P. J.; Sardeson, F. W.; Weller, S.
Macronotella.—Ruedemann, R.
Macropneustes.—Airaghi, C.
Macrosporium.—Renault, B.
Macrostachya.—Nathorst, A.
Macrostylocrinus.—Weller, S.
Mactra.—Andrusov, N.; Brœgger, W. C., &c.; Ortmann, A. E.; Procházka, V. J.; Simionescu, J.; Sturm, F.
Madagascar.—Boule, M.; Joly, P. R.; Lacroix, A.; Lorenz, L. von; Major, C. I. F.; Pelatan, L.
Maddalena I. (Sardinia).—Rimatori, C.; Riva, C.
Madeira (Azores).—Scharff, R. F.
Madras (India).—Anon., 57; Coomáraswámy, A. K.; Warth, H.
Madre, Sierra (Cal.).—Claypole, E. W.; Hilgard, E. W.
Madrid (Spain).—Macpherson, J.

Mæandrina.—Wanner, J.
Mæneceras.—Frech, F.
Maestricht (Holland).—Lambert, J.
Maestrichtian tufa, Hainault.—Cornet, J.
Magdeburg (Prussia).—Denckmann, A., &c.; Kubierski, K.; Potonié, H.; Wuest, E.
Magellania & *Malletia.*—Ortmann, A. E.
Maggia landslip (Ticino).—Heim, A.
Magmas.—Arsandaux, H.; Eckel, E. C.; Lacroix, A.
Magnesian limestones.—Abbott, G.; Eisenhuth, K.; Keyes, C. R.
Magnesite.—Anon., 57; Freyn, R.; Johnsen, A.
Magnetic Cove (Ark.).—Washington, H. S.
—— iron-ore.—Bergt, W.; Rinne, F.; Schlegel, K.
Magnetism, terrestrial.—Meyer, G.; Raulin, V.
Magnetite.—Bonney, T. G.; Neuwirth, V.
Magra Valley (Tuscany).—Ugolini, R.
Maine (U.S.A.).—Crosby, W. O.; Wolff, J. E., &c.
Makrán (Persia).—Blanford, W. T.
Malachite.—Mackie, W.; Milch, L.
Malay Federated States.—Skeat, W. W.
——. *See* Perak, &c.
Maldives (Indian Ocean).—Agassiz, A.; Gardiner, J. S.
Malenco Valley (Lombardy).—Brugnatelli, L.
Malladaia.—Œhlert, D. P.
Malm. *See* Jurassic.
Malmédy (Rh.-Pr.).—Renier, A.
Malmesbury Beds.—Gibson, W.
Malmö (Scania).—Moberg, J. C.
Malvern Hills.—Groom, T. T.
Mam Tor (Derbyshire).—Barnes, J.
Mammalia, Cretaceous.—Ameghino, F.; Lambe, L. M.; Roth, S.
——, Marsh Collection.—Wortman, J. L.
——, N. American fossil.—Hay, O. P.
——, Quaternary.—Amoedo, O.; Barrett-Hamilton, G. E. H.; Buckman, S. S., &c.; Edwards, J. J.; Flores, E.; Fraipont, J.; Gregory, J. W.; Harlé, É.; Hartz, N.; Hinton, M. A. C., &c.; Holst, N. O.; Kissling, E.; Lorenz, L. von; Lydekker, R.; Macconnell, P.; Major, C. I. F.; Michael, R.; Munthe, H.; Nehring, A.; Newton, E. T.; Reynolds, S. H.; Ricci, A.; Schafarzik, F.; Schlosser, M.; Studer, T.; Toula, F.; Van Oort, E. D.; Williston, S. W.; Wittich, E.
——, Tertiary.—Abel, O.; Ameghino, F.; Andrews, C. W., &c.; Anon., 53; Beadnell, H. J. L.; Bosco, C.; Boule, M.; Branner, J. C.; Dal Piaz, G.; Depéret, C.; Douglass, E.; Gaudry, A.; Gidley, J. W.; Lydekker, R.; Major, C. I. F.; Matthew, W. D.; Mercerat, A.; Nehring, A.; Omboni, G.; Pavlov, M.; Portis, A.; Roth, S.; Rutot, A.; Schlosser, M.; Seguenza, L.; Simionescu, J.; Sinclair, W. J.; Ugolini, R.; Volz, W.; Walther, J.; Wittich, E.; Wuest, E.; Yoshiwara, S., &c.; Zimmermann, E.
Mammites.—Petrascheck, W.
Mammoth, Belgium.—Rutot, A.; Sauvage, H. E.
——, Denmark.—Steenstrup, K. J. V.
——, Finland.—Rosberg, J. E.
——, Provence.—Repelin, J.
——, Tuscany.—Ricci, A.
Man, antiquity of.—Howorth, Sir H. H.; Hunt, A. R.
——, Dordogne cave.—Anon., 54; Capitan, L.; Koken, E.; Moissan, H.; Rivière, E.
——, earth &.—Lobley, J. L.
——, evolution &.—Grant, C. C.
——, Lansing (Kan.).—Upham, W.; Winchell, N. H.
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Man, I. of.—Dawkins, W. B.; Wright, J.
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——, Elgin Sandstone.—Mackie, W.
——, New Caledonia.—Pelatan, L.
——, oceanic nodules.—Agassiz, A.
——, Taunus.—Wittich, E., &c.
——, Thuringia.—Boulenger, C.
——, U.S.A., &c.—Birkinbine, J.
Mangilia.—Cossmann, M.
Mangoli I. (D.E.I.).—Bœhm, G.
Manhattan I. (N.Y.).—Hobbs, W. H.
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Manitoba (Canada).—Bell, R., &c.
Mansel-Pleydell, J. C. *See* Anon., 8.
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Maplewell Beds, Leicester.—Rœchling, H. A., &c.
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Africa (Equatorial).
  Tanganyika Lake. Marungu & Utembue. $\frac{1}{300,000}$. 1901.—Langhans, P.
Africa (North).
  Algeria & Tunis. $\frac{1}{10,000,000}$. 1902.—Pelatan, L.

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——. Tugela R. 1 inch=1 mile. 1901. Anderson, W.

Transvaal. $\frac{1}{1,500,000}$. 1901.—Molengraaff, G. A. F.

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——. Earthquake-map. $\frac{1}{750,000}$. 1902. —Sapper, K.

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——. Wrangell Mts. 1 inch = 15 miles. 1900.—Rohn, O.

America (North).

Lake-Superior Region. 1 inch = 40 miles. 1901.—Van Hise, C. R.

Niagara River. 1 inch=1 mile. 1901. —Grabau, A. W.

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——. ——. Clinton Co. $\frac{1}{62,500}$. 1901. —Cushing, H. P.

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——. ——. Bukova, &c. (*various*). 1901.—Schafarzik, F.

——. ——. Sáros & Zemplén. $\frac{1}{75,000}$. 1902.—Adda, K. von.

——. ——. Soil-map. 1 inch = 65 miles. 1902.—Treitz, P.

——. Rhætian Alps. $\frac{1}{50,000}$. 1902.—Lorenz, T.

——. Salzburg - Radstädter Tauern, 1 inch=9 miles. 1901.—Vacek, M.

——. Styria. Gleichenberg. 1½ inches=1 klm. 1902.—Sigmund, A.

——. Tyrol. Innsbruck district. 1 inch=25 kilom., & $\frac{1}{35,000}$. 1902.—Penck, A., &c.

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——. ——. St. Chinian, $\frac{1}{320,000}$. 1901.—Depéret, C.

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——, flow of.—Adams, F. D., &c.

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——, Tiree.—Coomáraswámy, A. K.

Marburg a. d. Drau (Styria).—Dreger, J.

Marcasite.—Stokes, H. N.

Marcellus-stage, New York.—Clarke, J. M.; Wood, E.

Marches (Italy).—Mariani, M.; Moderni, P.

Maretia.—Lambert, J.

Margaret, Mt. (W. Austral.).—King, H. S., &c.

Margarita & *Marsenina*.—Brœgger, W. C., &c.

Marginella & *Martesia*.—Ortmann, A. E.

Marginulina.—Procházka, V. J.

Maria I. (Tasm.).—Johnston, R. M.

Mariania.—Airaghi, C.
Mariemont (Namur).—Bommer, C.
Marikanave Dam (Mysore).—Evans, J. W., &c.; Smeeth, W. F.
Mariupol (Ekaterinoslav).—Golubiatnikov, D. V.
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Marl, Clonbrock, &c. shell-.—Welch, R. J.
Marls, Belgian.—Cornet, J.
Marmora, Sea of.—English, T.
Marquette (Mich.).—Van Hise, C. R.
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—— -zone.—Macpherson, W.; Reid, C.; Sherborn, C. D.
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Marungu (Lake Tanganyika).—Langhans, P.
Marwood Beds, Devon.—Coomáraswámy, E. M.
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Maryland (U.S.A.).—Newton, R. B.; Reid, H. F., &c.; Ries, H.; Willis, B.
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Mazaruni R. (Brit. Guiana).—Harrison, J. B.
Mazon Creek (Ill.).—Sellards, E. H.
Meandropsina.—Egger, J. G.
Mecklenburg (N. Germany).—Linstow, O. von.
—— lakes.—Passarge, S.
Medevi (Gotland).—Blomberg, A.
Medford (Mass.).—Wilson, A. W. G.
Mediomorpha & Megistocrinus.—Œhlert, D. P.
Mediterranean, Tertiary deposits.—Bœttger, O.; Golubiatnikov, D. V.
Medlicottia.—Frech, F.
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Medusæ, Cretaceous & Jurassic.—Maas, O.
Medvid I. (Siberian Arctic).—Toll, E. von.
Meekopora.—Condra, C. B.
Megaladapis & *Mesoadapis.*—Lorenz, L. von.
Megalanteris.—Clarke, J. M.; Drevermann, F.
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Megalodon.—Giattini, G. B.
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Megambonia & *Meristella.*—Clarke, J. M.
Megaphyton.—Potonié, H.
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Meiningen (Germany).—Walther, J.
Meiocardia.—Dainelli, G.
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Melanochalcite.—Kœnig, G. A.
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Melaphyre.—Chelius, C.; Klemm, G.; Kueppers, E.; Wittich, E.
Melbourne (Victoria).—Grant, F. E.; Kitson, A. E.
Melicerita.—Canu, F.; Ortmann, A. E.
Melilite, Syracuse.—Smith, C. H., jun.
Melilli (Sicily).—Pampaloni, L.
Melitodes.—Hall, T. S.
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Melongena.—Cossmann, M.
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Melton (Norfolk).—Reid, C.
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——, China.—Bauerman, H.
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Mersey coal-measures, Tasmania.—Johnston, R. M.
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Mertensia.—Shirley, J.
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Mesa (Colo.).—Lakes, A.
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Metamorphic rocks, Anglesey.—Greenly, E.
—— ——, California.—Hershey, O. H.

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—— ——, Devon.—Hunt, A. R.
—— ——, French Guiana.—Geay, F.
—— ——, Ireland. — Kinahan. G. H.; Kilroe, J. R., &c.; Machenry, A., &c.
—— ——, Labrador.—Daly, R. A.
—— ——, origin of.—Macmahon, C. A.; Teall, J. J. H.
—— ——, Scotland.—Hinxman, L. W., &c.
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——, Finland.—Fletcher, L.; Ramsay, W., &c.
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——, iron, &c. — Farrington, O. C.; Meunier, St.
——, Kansas.—Merrill, G. P.
——, Mexico.—Ward, H. A.
——, origin, &c. of.—Edwards, T.
——, Paris Natural History Museum.—Meunier, St.
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Meteorology, geology &.—Ekholm, N.; Harmer, F. W.
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—— -crystals.—Franchi, S.; Muegge, O.; Rinne, F.
——, France.—Arsandaux, H.
——, Newfoundland.—Howley, J. P.
——, United States, &c.—Holmes, J. A.; Parker, E. W.
——. *See also* Muscovite, &c.
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——, Scotland.—Hinxman, L. W., &c.
——, supposed ripple-marks in.—Emerson, B. K.
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Microscope, petrographical wedge. — Wright, F. E.
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Middelburg (Transvaal).—Anon., 29.
Middlesex. — Jukes - Browne, A. J.; Whitaker, W.
Midlothian sea-shore sinking.—Martin, R.
Mieminger Mts. (Tyrol).—Ampferer, O.
Miersite.—Prior, G. T.; Spencer, L. J.
Migrations, palæontological.—Van den Broeck, E.; Williams, H. S.
Milazzo, Cape (Sicily).—Seguenza, L.
Miliolina.—Friedberg, W.
MILLER, H. *See* Geikie, Sir A.
Millerite.—Sachs, A.
Millstone Grit.—Rhodes, J.
MILNE-EDWARDS, A. & H. *See* Perrier, E.
Miltetz (Saxony).—Bergt, W.
Milverton (Somerset).—Thomas, H. H.
Minas Geraes (Brazil).—Scott, H. K.
Mineo Observatory (Sicily).—Guzzanti, C.
Mineral resources, United States.—Day, T. D.
—— ——, ——. *See also* Iron, Copper, &c.
—— waters, Algeria.—Coignard, —, &c.
—— ——, Auvergne.—Cullis, C. J., &c.
—— ——, Derbyshire.—Barnes, J.
—— ——, Liége.—Doudou, E.
—— ——, Nassau.—Eck, H.
—— ——, origin of.—Delkeskamp, R.; Van den Broeck, E.
—— ——, New Zealand.—Hector, Sir James.
—— ——, Peru.—Raimondi, A., &c.
—— ——, Rhenish-Prussia. — Henrich, F.
—— ——, rock-absorption &.—Dittrich, M.
—— ——, Siberia.—Anon., 48.
—— ——, United States.—Peale, A. C.
Mineralogy, American, 1892–1900. — Weeks, F. B.
——, French Colonies.—Lacroix, A.
——, &c., text-books. — Bruhns, W.; Hintze, C.
Minerals, bending of.—Johnsen, A.
——, cleavage.—Friedel, G.
——, Frankfort Museum Collection.—Schauf, W.
——, melting - points of. — Brun, A.; Dœlter, C.; Joly, J.; Meyerhoffer, W.; Milch, L.; Vogt, J. H. L.

Minerals, Ireland.—Seymour, H. J.
——, New South Wales.—Card, G. W.
——, rock-forming. — Cole, G. A. J.; Dunstan, B.; Joly, J.; Kley, P.; Lakes, A.
——, Scottish.—Goodchild, J. G.
——, in soil.—Macconnell, P.
——, Spain & Portugal, localities of.—Tenne, C. F. A., &c.
——, Tasmania.—Petterd, W. F.
——. *See also* Precious Stones.
Mines, Great Britain, &c.—Atkinson, J. B., &c.; Foster, C. Le N., &c.; Hall, H., &c.
Mining, Cornwall.—More, R. J.
——, geology &.—Spurr, J. E.
Minnesota (U.S.A.). — Berkey, C. P.; Hall, C. W.; Upham, W.; Van Hise, C. R.; Winchell, N. H.
Minorca (Balearic Is.).—Lozano, R. S.
Minot (Maine).—Wolff, J. E., &c.
Minsk (Russia).—Missuna, A.
Miocene, American Great Plains. — Hatcher, J. B.
——, Ain.—Boistel, A.
——, Bohemia.—Procházka, V. J.
—— molasse, Ariège freshwater.—Vasseur, G.
——, Pikermi.—Major, C. I. F.
——, Tuscany.—Trentanove, G.
——, Umbria.—Ristori, G.
——, Verona.—Nicolis, E.
——. *See* Tertiary.
Mioclœnus.—Douglas, E.
Misburg (Hanover).—Wollemann, A.
Misol I. (D. E. I.).—Bœhm, G.
Mispickel, France.—Coignard, —, &c.
Mississippi Valley.—Farnsworth, P. J.; Keyes, C. R.; Shimek, B.; Upham, W.; Van Hise, C. R., &c.
Missouri (U.S.A.). — Adams, G. I.; Chamberlin, T. C.; Horton, A.; Keyes, C. R.; Marbut, C. F.; Rowley, R. R.; Van Hise, C. R., &c.; Weller, S.
Mittelgebirge (Bohemia).—Hibsch, J. E.
Mitra.—Cossmann, M.
Mixomycetes.—Renault, B.
Moabite-Stone.—Bonney, T. G.
Mocchie (Piedmont).—Piolti, G.
Modiglina (Tuscany). — Vinassa de Regny, P.
Modiola.—Bittner, A.; Etheridge, R., Jun.; Gortani, M.; Maurer, F.; Ortmann, A. E.; Procházka, V. J.; Quaas, A.; Ravn, J. P. J.; Simionescŭ, J.; Strahan, A., &c.; Sturm, F.; Trentanove, G.
Modiolaria, Mölleria, & Montacuta.—Brœgger, W. C., &c.
Modiolodon.—Schuchert, C.
Modiolopsis.—Reed, F. R. C.; Sardeson, F. W.
Modiomorpha. — Drevermann, F.; Maurer, F.; Weller, S.
Moehau (N.Z.).—Park, J.
Moeraki Beach (Otago).—Hamilton, A.
Mœritherium.—Ameghino, F.
Mohawk Valley (N.Y.).—Prosser, C. S.
Mohawkite.—Kœnig, G. A.
Mohsite.—Colomba, L.
Moine Schist, Scotland.—Hinxman, L. W.
Mojada, Sierra (Mexico).—Malcolmson, J. W.
Mokattam (Egypt).—Stromer, E.
Molasse, Ariège freshwater.—Vasseur, G.
——, Baden.—Schalch, F.
——, Bavarian.—Liebus, A.; Weithofer, K. A.
——, Switzerland.—Kissling, E.
Moldavia.—Mrazec, L., &c.; Simionescŭ, J.
Mole R. (Surrey).—Stebbing, W. P. D.
Molucca Is. (D. E. I.).—Bœhm, G.; Koperberg, M.; Lucas, W.; Martin, K.
Molybdenum, United States.—Pratt, J. H.
Molybdophyllite.—Gaubert, P.
MONACO's, Prince of, cave-explorations. —Verneau, R.
Monactiniladarum.—Andrusov, N.
Monchiquite, Madagascar.—Lacroix, A.
Mondovi Hill (Piedmont).—Sacco, F.
Monazite.—Metzger, F. J.; Turner, H. W.
Monkeys, Quaternary.—Lorenz, L. von.
——, Tertiary.—Gaudry, A.; Schlosser, M.; Wittich, E.
Monoclonius.—Lambe, L. M.
Monograptus. — Holm, G., &c.; Kerforne, F.; Kruft, L.
Monopleura.—Hill, R. T.
Monotis.—Vogel, F.
Monotrypa & *Monotrypella.*—Počta, P.
Mont-Blanc massif.—Coolidge, W. A. B.
Montagne Noire (Languedoc). — Bergeron, J.; Collot, —; Depéret, C.; Dereims, A.; Nicklès, R.; Pompeckj, J. F.
Montana (U.S.A.).—Douglass, E.; Pratt, J. H.; Weed, W. H.
Montauban (Tarn-et-Garonne).—Michel-Lévy, A., &c.
Montella (Venetia).—Stella, A.
Montenegro.—Cvijić, J.; Giattini, G. B.; Vinassa de Regny, P.
Montgomery Co. (N.Y.).—Cumings, E. R.; Kemp, J. F.
Montian.—Leriche, M.; Rutot, A.
Monticulipora.—Počta, P.; Reed, F. R. C.
Montpellier (Languedoc).—Rouville, P. G. de.
Montreal (Canada).—Buchan, J. S.
Monzoni (Tyrol).—Gordon, M. M. O.
Monzonite.—Achiardi, G. d'; Derby, O. A.; Dœlter, C.; Lacroix, A.; Romberg, J.; Washington, H. S.; Weber, M.
Moonta (S. Austral.).—Hancock, H. L.
Moorabool R. (Victoria).—Mulder, J. F.
Moors, Scottish.—Smith, W. G.
Moraines, Alps.—Bonney, T. G.

Moraines, Connecticut. — Eggleston, J. W.
——, Europe (Central).—Penck, A., &c.
——, Finland.—Rosberg, J. E.
——, Garda, Lake.—Nicolis, E.
——, Germany (N.).—Geinitz, E.; Keilhack, K.; Klautzsch, A.; Maas, G.; Schmidt, A.
—— lakes &.—Dryer, C. R.
——, Leith Valley (N.Z.).—Park, J.
——, Maine.—Crosby, W. O.
——, Netherlands.—Lorié, J.
——, Russia (W.).—Missuna, A.
——, Sweden.—Dusén, P.; Hedstrœm, H.
——, Switzerland.—Æberhardt, B.
Moravia (Austria). — Neuwirth, V. Remeš, M.; Rœsler, H.; Tietze, E.
Moray Firth (Scotland).—Mackie, W.
Morocco.—Brives, A.; Pelatan, L.
Morgan, Mt. (Queensl.).—Dunstan, B.
Morgantown (W. Va.).—White, I. C.
Morosaurus.—Granger, W., &c.; Riggs, E. S.; Skiff, F. J. V.
Morosporium.—Renault, B.
Moroxite.—Klein, C.
Morrison Shales.—Lee, W. T.
Mörset (Norway).—Reusch, H.
Mortoniceras.—Hill, R. T.; Sayn, G.
Morvillia.—Brœgger, W. C., &c.
Mosasaurus.—Thevenin, A.; Yakovlev, N.
Mosbach (Nassau).—Kinkelin, F., &c.
Moscow Gov. (Russia).—Palibin, I. V.
Moselle R. (France).—Lamothe, — de.
Mosquito Range (Colo.).—Lakes, A.
Mourlonia.—Weller, S.
Mount Royal (Montreal).—Buchan, J. S.
Mountains, Norway.—Reusch, H.
——, origin of.—Avebury, Lord; Geikie, J.; Lakes, A.; Meunier, St.
Mouthe caves (Dordogne).—Koken, E.
——. *See also* Caverns, &c.
Moutier (Berne).—Rollier, L.
Mucedites.—Renault, B.
Mucronella.—Maplestone, C. M.
Mud, estuarine.—Wheeler, W. H.
—— island, Walfisch Bay.—Schenck, A.
——, Nyasa, Lake. — Rhoades, E. L., &c.
—— -streams, Alpine.—Bonney, T. G.
Muellerite.—Macivor, R. W. E.
Mühl (U. Austria).—Graber, H. V.
Mumliswil (Solothurn).—Steinmann, G.
Mundesley (Norfolk).—Reid, C.
Munich (Bavaria).—Ammon, L. von.
—— (—), Geological Museum.—Zittel, K. A. von.
Muniericeras.—Petrascheck, W.
Murchisonia.—Donald, J.; Weller, S.
Murcia (Spain).—Nicklès, R.
Murex.—Ortmann, A. E.; Wanner, J.
Murojnaïa R. (Siberia).—Meister, A.
Muschelkalk. *See* Trias.
Muscovite.—Bowman, H. L.
MUSHKETOV, I. V. *See* Anon., 9; Bogdanovich, K.; Krapotkin, P.
Museum, American Museum of Natural History, New York.—Hovey, E. O.; Whitfield, R. P., &c.
——, Basel Natural History.—Sarasin, F.
——, British (Bloomsbury).—Read, C. H.
——, —— (Natural History).—Lydekker, R.; Newton, R. B.; Woodward, A. S.
——, Brussels Congo.—Major, C. I. F.
——, —— Natural History.—Abel, O.
——, Comparative Zoology, Harvard College.—Davis, W. M.; Eastman, C. R.; Ward, R. de C.
——, FIELD Columbian.—Skiff, F. J. V.
——, Frankfort-on-Main Natural History Society. — Kinkelin, F., &c.; Schauf, W.
——, Geological Survey of Scotland.—Goodchild, J. G.
——, Hull.—Sheppard, T.
——, La Plata.—Roth, S.
——, Munich Geological.—Zittel, K. A. von.
——, New South Wales Geological Survey.—Card, G. W.
——, New York State, Albany.—Bagg, R. M.; Merrill, F. J. H.; Merrill, G. P.
——, Northumberland and Durham Natural History Society's.—Anon., 71.
——, Norwich Castle.—Leney, F.
——, Paris Natural History.—Boule, M.; Meunier, St.
——, PEABODY Museum, MARSH Collection.—Wortman, J. L.
——, Practical Geology & Geological Survey.—Anon., 21; Allen, H. A.; Rudler, F. W.
——. U.S. National: Gems & Meteorites.—Tassin, W.
——, WOODWARDIAN. — Arber, E. A. N.; Kurtz, F.; Reed, F. R. C.
Musk-ox, Dordogne.—Harlé, É.
Musselburgh (Edinburgh).—Martin, R.
Mustela.—Major, C. I. F.; Matthew, W. D.; Schlosser, M.
Muttra (Bengal).—Leather, J. W.
Montereau (Seine-et-Marne).—Thomas, H.
Mya.—Brœgger, W. C.
Myacites, *Myophoriopsis*, & *Mysidioptera.*—Bittner, A.
Myalina. — Bittner, A.; Drevermann, F.; Maurer, F.; Sardeson, F. W.; Stobbs, J. T.
Myelodactylus & *Mytilarca.*—Weller, S.
Mykonos I. (Greece).—Philippson, A.
Myledaphus.—Lambe, L. M.
Mynydd-y-Garn (Anglesey). — Matley, C. A.
Myoconcha.—Bittner, A.; Loriol, P. de, &c.
Myodes.—Hartz, N.
Myogaulus.—Matthew, W. D.

Myogramma.—Maas, O.
Myolagus.—Wittich, E.
Myophoria.—Bittner, A.; [Gortani, M.; Maurer, F.
Myrica.—Engelhardt, H.; Hill, R. T.
Myrsine.—Engelhardt, H.
Mysore (India).—Carr, F. E.; Evans, J. W., &c.; Foote, R. B.; Jayaram, B.; Primrose, A.; Sambasiva Iyer, V. S.; Slater, H. K.; Smeeth, W. F.
Mytilus. — Bittner, A.; Brœgger, W. C., &c.; Broili, F.; Choffat, P.; Etheridge, R., Jun.; Gortani, M.; Ortmann, A. E.; Reis, O. M.; Roth, S., &c.; Stanton, T. W.

Nacella.—Brœgger, W. C., &c.
Nagasaki (Japan).—Nardin, E. W.
Nagy-Ölved (Hungary). — Horusitzky, H.
Nairn (Scotland).—Mackie, W.
Namaqualand, Gt. (S. Africa). — Schenck, A.
Namur (Belgium).—Forir, H.; Lohest, M., &c.; Rabozée, H.; Rahir, E.; Rutot, A.; Simoens, G.; Soreil, G.; Stainier, X.; Van den Broeck, E.
Nandi (Mysore).—Primrose, A.
Nan Shan (China).—Diener, C.
Napier (N.Z.).—Hutchinson, F., Jun.
Naples (Italy).—Angelis d'Ossat, G. de.
Narborough (Leicester).—Rœchling, H. A., &c.
Narica.—Cossmann, M.
Nassa.—Andrusov, N.; Brœgger, W. C., &c.; Dainelli, G.; Kinkelin, F., &c.; Ravn, J. P. J.; Trentanove, G.; Woodworth, J. B.
Natal.—Anderson, W.; Gray, C. J., &c.; Herbertson, A. J.
Natchez (Miss.).—Shimek, B.
Natica.—Brœgger, W. C., &c.; Choffat, P.; Dainelli, G.; Deninger, K.; Levi, G.; Longhi, P.; Mayer-Eymar, C.; Ortmann, A. E.; Procházka, V. J.; Quaas, A.; Rehbinder, B. von; Schlosser, M.; Sturm, F.; Wanner, J.
Natica-necklace, Remouchamps.—Van den Broeck, E.
Naticopsis.—Drevermann, F.; Weller, S.
Natrun, Wadi (Egypt).—Andrews, C.W.
Naugard (Pomerania).—Schmidt, M.
Nautilus.—Burckhardt, C.; Cossmann, M.; Crick, G. C.; Dainelli, G.; Fornasini, C.; Ihering, H. von; Jækel, O.; Quaas, A.; Ravn, J. P. J.; Wanner, J.
Navicula.—Pantocsek, J.; Ries, H.
Neæra.—Brœgger, W. C., &c.; Levi, G.; Ravn, J. P. J.; Wollemann, A.
Neanderthal man.—Kœnen, C.
Neauphle-le-Château (Seine-et-Oise).—Schlœsing, T.
Nebraska (U.S.A.). — Condra, C. B.; Fisher, C. A.; Hatcher, J. B.
Neckar R. (Germany). — Haag, F.; Koken, E.; Stoller, J.
Necklace, prehistoric.—Van den Broeck, E.
Nemaphyllite.—Focke, F.
Nemastomoides.—Thevenin, A.
Nematophytum.—Prosser, C. S.
Nematurella.—Madsen, V., &c.
Nemolestes & *Nephacodes.*—Ameghino, F.
Neocomian, Alpes-Maritimes. — Guébhard, A.
Neoinoceramus.—Ihering, H. von.
Neolenus.—Woodward, H.
Neostroma.—Tornquist, A.
Neotantalite.—Termier, P.
Nepal (Himalayas).—Garwood, E. J.
Nepheline-rocks.—Buchan, J. S.; Card, G. W.; Coleman, A. P.; Dieseldorff, A.; Hinterlechner, K.; Romberg, J.; Sœllner, J.
Nephelinitic tinguaite.—David, T. W. E., &c.
Nephelites.—Deane, H.
Nephrite.—Bodmer-Beder, A.; Sachs, A.
Neptunea.—Brœgger, W. C., &c.
Nerike (Svealand).—Blomberg, A.
Nerinea.—Broili, F.; Choffat, P.; Peron, A.; Rehbinder, B. von; Vogel, F.
Nerita.—Choffat, P.; Procházka, V. J.; Rehbinder, B. von; Sturm, F.
Neritina.—Andrusov, N.; Choffat, P.; Cossmann, M.; Lœrenthay, E.; Pallary, P.
Neritinella.—Choffat, P.
Nesselberg (Harz).—Wunstorf, W.
Nesselsdorf Beds, Moravia.—Remeš, M.
Netherlands.—Dubois, E.; Lambert, J.; Lorié, J.
Nettlingen (Hanover). — Menzel, H.; Wollemann, A.
Neuchâtel (Switzerland).—Rittener, T.
Neuenheerse (Westphalia).—Stille, H.
Neuquem (Argentina).—Roth, S., &c.
Neurankylus.—Lambe, L. M.
Neuropteris.—Arcangeli, G.; Shirley, J.
Neustadt (Bohemia).—Petrascheck, W.
Nevada (U.S.A.). — Emmons, S. F.; Merriam, J. C.; Spurr, J. E.; Talmage, J. E.; Turner, H. W.; Yunge, E.
Newark (New York).—Kuemmel, H. B.
Newark formation, Connecticut.—Hobbs, W. H.
Newberyite.—Macivor, R. W. E.
Newbottle Collieries (Durham).—Brown, M. W.
New Brunswick (Canada).—Ells, R. W.; Jones, T. R.; Matthew, G. F.; Poole, H. S.
New Caledonia (Pacific).—Pelatan, L.; White, H. P.
New Canaan (N.S.).—Ami, H. M.
Newcastle (N.S.W.).—Atkinson, A. A.
New England. *See* New Hampshire, &c.
New Forest (Hants).—Reid, C.
Newfoundland.—Howley, J. P.
New Hampshire (U.S.A.).—Davis, W. M.
New Jersey (U.S.A.).—Kuemmel, H. B., &c.; Wolff, J. E.; Woolman, L.
Newlyn (Cornwall).—Flett, J. S.

New Madrid (Mo.).—Broadhead, G. C.
New Mexico (U.S.A.).—Hatcher, J. B.; Johnson, D. W.; Lakes, A.; Lee, W. T.; Newell, F. H.; Ogilvie, I. H.; Rœsler, H.; Sinclair, W. J.
New Red Sandstone. *See* Trias.
New South Wales.—Andrews, E. C.; Anon., 25, 47; Atkinson, A. A.; Arber, E. A. N.; Card, G. W.; Cardew, J. H.; David, T. W. E.; Deane, H.; Dun, W. S.; Etheridge, R., Jun.; Frech, F.; Hall, T. S.; Jaquet, J. B.; Kurtz, F.; Maclachlan, D. C.; Mingaye, J. C. H.; Pittman, E. F.; Slee, W. H. J.; Spencer, L. J.; Trickett, A.; Woodward, A. S.
New York (U.S.A.).—Bishop, I. P.; Clarke, J. M.; Crosby, W. O.; Cumings, E. R.; Cushing, H. P.; Dwight, B.; Hobbs, W. H.; Kemp, J. F.; Kuemmel, H. B.; Loomis, F. B.; Merrill, F. J. H.; Merrill, G. P.; Milne, J.; Nevius, J. N.; Ogilvie, I. H.; Orton, E.; Prosser, C. S.; Ries, H.; Ruedemann, R.; Schneider, P. B.; Smyth, C. H., Jun.; Woodworth, J. F.; Wood, E.
New Zealand.—Anon., 25; Dawkins, W. B.; Dieseldorff, A.; Fox, C. E.; Frech, F.; Haselden, W. R., &c.; Hayes, J.; Hector, Sir J.; Hutchinson, F., Jun.; Hutton, F. W.; Macgowan, J.; Mackay, A.; Maclaren, J. M.; Mulgan, E. K.; Park, J.; Payne, F. W.; Rutley, F.; Stewart, J. T.
——. *See also* Otago, Tertiary, &c.
Ngami, Lake (Rhodesia).—Kalkovski, E.
Niagara Falls (N. Am.).—Grabau, A. W.; Hogg, E. G.; Wright, G. F.
Niagara formation. — Elrod, M. N.; Grant, C. C.; Kindle, E. M.; Weller, S.
Nicaragua (C. Am.). — Crawford, J; Davis, A. P.; Sapper, K.
Nice (Alpes-Maritimes).—Michel-Lévy, A., &c.
Nicholsonia.—Počta, P.
Nickel, New Caledonia.—Pelatan, L.
——, Norway.—Vogt, J. H. L.
——, Saxony.—Beck, R.
—— sulphide of.—Sachs, A.
——, Tasmania.—Waller, G. A.
Nickerie R. (Dutch Guiana).—Bergt, W.
Niederschönthal (Basel).—Struebin, K.
Nijmwegen (Holland).—Lorié, J.
Nil-Saint-Vincent (Brabant). — Van Hove, —.
Nile cataract-erosion.—Ball, J.
Nile, Upper (Africa).—Neumann, O.
Nile Valley (Egypt).—Ball, J.; Fourtau, R.; Lortet, —.
Niobe.—Groom, T. T., &c.; Holm, G., &c.
Nitrite-deposits, California.—Ochsenius, C.
——. *See also* Salt, Chile, &c.
Nitzschia.—Pantocsek, J.; Ries, H.
Nizhni-Tagilsk (Urals).—St. Rainer, L.
Nodosaria.—Friedberg, W.; Liebus, A.; Procházka, V. J.; Schubert, R. J.; Wanner, J.
Nœggerathia.—Krasser, F.; Shirley, J.
Nœggerathiopsis.—Arber, E. A. N.; Zeiller, R.
Nœtlingia.—Gautier, V.
Nolan, J. *See* Clark, R.
Nome, Cape (Alaska).—Brooks, A. H., &c.
Nonionina.—Procházka, V. J.
Norberg (Svealand).—Petersson, W.
Nord (France).—Cooreman, T.; Gosselet, J.; Rabelle, A; Videlaine, —.
Nordenskjœld, Baron N. A. E. *See* Anon., 10; Nathorst, A. G.; Rudler, F. W.; Voit, C.
Nordlingen (Bavaria).—Knebel, W. von.
Norfolk.—Harmer, F. W.; Longe, F. D.; Monckton, H. W., &c.; Reid, C.; Woodward, H. B.
Normandy (France).—Becke, F.; Bigot, A.; Grossouvre, A. de; Leclère, A.; Masse, R.
Norrbotten (Sweden).—Holmquist, P. J.; Munthe, H.
Norrisiella.—Cossmann, M.
Northamptonshire.—Judd, J. W., &c.; Thompson, B.
Northumberland.—Anon., 67; Dwerryhouse, A. R.; Jukes-Browne, A. J.; Kendall, P. F., &c.; Lee, J.
Northumberland & Durham Natural History Society.—Anon., 71.
Norton Bay (Alaska).—Brooks, A. H., &c.; Mendenhill, W. C.
Norton, East (Leicestershire).—Rœchling, H. A.
North Sea.—Sauvage, H. E.
Norway.—Brœgger, W. C., &c.; Helland, A.; Holmbœ, J; Holmquist, P. J.; Hull, E.; Kolderup, C.; Monckton, H. W.; Muenster, T.; Œyen, P. A.; Nansen, F.; Norman, A. M.; Reusch, H; Strangland, G. E.; Vogt, J. H. L.
Nossi Bé I. (Madagascar).—Lacroix, A.
Nothosaurus.—Huene, F. von.
Notostylops.—Ameghino, F.
Nottinghamshire.—Jukes-Browne, A. J.
Novocherkask (Russia).—Bogachev, V.
Novomoskovsk (Ekaterinoslav Gov.).—Vosnessenski, V.
Nova Scotia (Canada).—Ami, H. M.; Gilpin, E., Jun.; Jones, T. R.; Matthew, G. F.
Norwegian-Icelandic submarine plateau. —Nansen, F.
Norwich-Castle Museum types.—Leney, F.
—— Crag.— Harmer, F. W.; Jukes-Browne, J.
Nubian Sandstone.—Ball, J.; Fourtau, R.
Nucleospira.—Weller, S.
Nucula.—Bittner, A.; Brœgger, W. C., &c.; Gortani, M.; Loriol, P. de, &c.; Ortmann, A. E.; Quaas, A.; Stanton, T. W.; Wanner, J.; Weller, S.

Nuculana.—Maurer, F.
Nummopalatus.—Priem, F.
Nummulites.—Chapman, F.; Douvillé, H.; Yoshiwara, S.
Nummulitic deposits.—Chapman, F.; Kilian, W.; Martelli, A.; Viola, C.
Nyasa, Lake (Equat. Africa).—Rhoades, E. L., &c.
Nyborg (Denmark).—Madsen, V.
Nyctodactylus.—Williston, S. W.
Nysti.—Mayer-Eymar, C.

Oatlands (Tasm.).—Twelvetrees, W. H.
Oberlaibach (Carniola).—Kossmat, F.
Oberstadtfeld (Rh. - Prussia).—Drevermann, F.
Obi I. (Molucca Is.).—Lucas, W.
Obolella.—Groom, T. T., &c.
OBRUTSCHEV, W. A. *See* Krasser, F.
Obsidian, Mexico.—Ordóñez, E.
——, Siberia (E.).—Washington, H. S.
——, W. Australia.—Simpson, E. S.
—— buttons, Tasmania.—Stephens, T.
Ocadia.—Stefano, G. de.
Ocean, Arctic.—Nansen, F.
——. *See also* Pacific.
Oceanic deposits.—Agassiz, A.; Arçtowski, H., &c.; Murray, Sir John; Thoulet, J.
— salt-distribution.—Schott, G.; Van't Hoff, J. H., &c.
Ochil Hills (Fife).—Geikie, Sir A.
Ochre, Devon, &c.—Collins, J. H.
Ocebro (Svealand).—Blomberg, A.
Ocinebra.—Quaas, A.
Octahedrite.—Bœris, G.
Oculina.—Wanner, J.
Odadarhaun lava desert (Iceland).—Prinz, W.
Odenheim (Baden).—Thuerach, H.
Odenwald (Hesse).—Klemm, G.; Salomon, W.
Oderwald (Brunswick).—Wollemann, A.
Odontaspis.—Leriche, M.; Priem, F.; Stefano, G. de; Stromer, E.
Odostomia & *Onoba.*—Brœgger, W. C., &c.
Odostomopsis.—Rehbinder, B. von.
Odontomysops.—Ameghino, F.
Odontostomia.—Ortmann, A. E.
Œcoptychius & *Oppelia.*—Loriol, P. de, &c.
Œkörmezö (Hungary).—Posewitz, T.
Œningen (Solothurn).—Steinmann, G.
Offaster-zone.—Reid, C.; Sherborn, C. D.
Ogasawara Is. (Pacific).—Yoshiwara, S.
Ogygopsis.—Woodward, H.
Ohio (U.S.A.). — Campbell, M. R.; Leverett, F.; Pierce, S. J.; Prosser, C. S.
Oil. *See* Petroleum, &c.
Oil-shale, New South Wales.—Atkinson, A. A.
——, Scottish.—Cadell, H. M.; Garrett, F. C., &c.; Geikie, Sir A.
——. *See also* Petroleum.
Oisans Mts. (Dauphiné).—Muller, —.
Oise (France).—Thiot, A.
Okapi, fossil.—Major, C. I. F.
Okinawa Is. (Pacific).—Yoshiwara, S.
Oklahoma (U.S.A.).—Haworth, E., &c.
Oklos (Hungary).—Telegd, L. R. von.
Old Red Sandstone, Scotland.—Geikie, Sir A.; Hinxman, L. W., &c.; Horne, J.; Peach, B. N.
—— ——, Ireland.—Machenry, A., &c.
Oleandridium.—Shirley, J.
Olekma R. (Siberia).—Gerasem, A. P.
Olenoides.—Woodward, H.
Olenus.—Holm, G., &c.
Oligocene. *See* Tertiary.
Oligoclase.—Gaubert, P.; Tertsch, —.
——. *See also* Felspar.
Oligophyllum & *Omphyma*—Počta, P.
Omphalophloios.—Kidston, R.
Oncoceras.—Schuchert, C.
Oneonta-beds, New York.—Clarke, J. M.
Ontario (Canada). — Coleman, A. P.; Goodwin, W. L.; Grant, C. C.
Onychochilus.—Wood, E.
Oochytrium.—Renault, B.
Oolite, Basel.—Newton, R. B.
——, Inferior, Bredon Hill.—Richardson, L.
——, Oxfordshire.—Bell, A. M.
——, Skye, I. of.—Woodward, H. B.
——, Wiltshire.—Reynolds, S. H.
Oolitic iron-ore, Lorraine.—Villain, F.
Ooze, Oceanic.—Murray, Sir John.
——, ——. *See also* Oceanic deposits.
Opal.—Maclachlan, D. C.; Spezia, G.
Operculina.—Chapman, F.; Newton, R. B., &c.
Opetiosaurus.—Kornhuber, A.
Ophiureæ, Jurassic.—Remeš, M.
Ophthalmidium.—Chapman, F.
Ophthalmosaurus.—Sauvage, E.
Opis.—Janensch, W.; Loriol, P. de, &c.
Opočno (Bohemia).—Petrascheck, W.
Oppeln (Silesia).—Michael, R.
Orange-River Colony (S. Africa).—Gibson, W.; Rogers, A. W.; Schellwien, E.; Skinner, B. M.
Orb, Lake (Aude).—Jacquemet, E.
Orbiculoidea.—Weller, S.
Orbignyana.—Sturm, F.
Orbitoides.—Chapman, F.; Egger, J. G.; Newton, R. B., &c.; Sacco, F.; Schlumberger, C.
Orbitolina.—Egger, J. G.; Lorenz, T.
Orca Series.—Schrader, F. C., &c.
Orciano (Tuscany).—Ugolini, R.
Ordovician, Anglesey. — Callaway, C.; Greenly, E.; Matley, C. A.
——, Caernarvonshire.—Matley, C. A.
——, Colorado.—Lee, W. T.
——, Indiana.—Cumings, E. R.
——, Ireland.—Kilroe, J. R., &c.
——, Lake District.—Harker, A.
——, Malverns.—Groom, T. T.
——, New York.—Kemp, J. F.
——, Spain, &c.—Dereims, A.
——, Victoria.—Hart, T. S.
——. *See also* Cambrian, &c.
Ore-deposits, African.—Launay, L. de.
——, Belgium.—Stainier, X.

Ore-deposits, Carinthia.—Sussmann, O.
——, French Colonies.—Pelatan, L.
——, Great Britain, &c.—Atkinson, J. B.; Foster, C. Le N.
——, igneous rocks &.—Heusler, C.
——, in sight.—Kendall, J. D.
——, Mexico.—Malcolmson, J. W.
——, Peru.—Letts, R. F.; Torrico-y-Mesa, J.
——, Spain & Portugal.—Tenne, C. F. A., &c.
——, Styria.—Setz, W.
——, Tuscany. — Angelis d'Ossat, G. de.
——, Washington (U.S.A.).—Winchell, N. H.
——. *See also* Gold, &c.
Ore, secondary enrichment of.—Letts, R. F.; Lindgren, W.
Oregon (U.S.A.).—Anderson, F. M.; Calkins, F. C.; Diller, J. S.; Fairbanks, H. W.; Hershey, O. H.; Merriam, J. C.; Sinclair, W. J.
Orel (Russia).—Krasnopolski, A.
Orenaug Hill (Conn.).—Hobbs, W. H.
Orenburg (Russia). — Koniushevski, L.; Kovalev, P.; Krasnopolski, A.; Mechaev, A.
Oriskania & Oriskany formation, New York.—Clarke, J. M.
Ornithomimus.—Lambe, L. M.
Ornithosauria, Jurassic.—Woodward, A. S.
——. *See also* Reptilia.
Orogenic poles.—Meunier, St.
Oro Grande (Cal.).—Hershey, O. H.
Orography. *See* Mountains, Scenery, &c.
Oroseris.—Wanner, J.
Orpiment.—Rinne, F.
Orthis.—Drevermann, F.; Holm, G., &c.; Macmahon, C. A., &c.; Schuchert, C.
Orthite.—Fromme, J.
Orthoceras.—Clarke, J. M.; Holm, G., &c.; Kruft, L.; Mojsisovics, E. von; Reed, F. R. C.; Schuchert, C.; Weller, S.
Orthoceras-limestone.—Gerrard, J.
Orthoceratite-limestone.—Holm, G., &c.
Orthochetus.—Cossmann, M.
Orthoclase. *See* Felspars.
Orthogenium & *Ortholophodon.*—Roth, S.
Orthonota.—Reed, F. R. C.
Orthophyllum.—Počta, P.
Orthophyre, Devon.—Ussher, W. A. E., &c.
Orthothetes.—Clarke, J. M.; Cumings, E. R.; Dunn, W. S.; Œhlert, D. P.; Weller, S.
Orthutætus&*Orthogeniops.*—Ameghino, F.
Orvieto (Umbria).—Lotti, B.
Orwell, R. (Suffolk).—Layard, N. F.
Oryctocephalus.—Woodward, H.
Orygoceras.—Lœrenthay, E.
Oshima Is. (Pacific).—Yoshiwara, S.
Oskar Fjord (Greenland).—Nathorst, A. G.
Osningberg (Lippe).—Elbert, J.
Ossicula.—Remeš, M.
Osterwald (Harz).—Wunstorf, W.
Ostracoda, Cambrian.—Groom, T. T.; Holm, G., &c.; Jones, T. R.; Matthew, G. F.
——, Carboniferous.—Peach, B. N.
——, Devonian.—Clarke, J. M.; Œhlert, D. P.; Peach, B. N.
——, Quaternary.—Chapman, F.
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Ostrea.—Bittner, A.; Burckhardt, C.; Choffat, P.; Dainelli, G.; Day, A. E., &c.; Dormal, V.; Loriol, P. de, &c.; Ortmann, A. E.; Procházka, V. J.; Quaas, A.; Ravn, J. P. J.; Reis, O. M.; Stanton, T. W.; Sturm, F.; Wanner, J.
Otago (N.Z.).—Hamilton, A.; Payne, F. W.; Quaas, A.
Otoceras.—Frech, F.
Otodus.—Sturm, F.; Wanner, J.
Otolithus.—Procházka, V. J.; Schubert, R. J.
Otostoma.—Choffat, P.
Otozamites.—Roth, S., &c.
Otronia.—Roth, S.
Otter, fossil.—Major, C. I. F.
Ottignies (Brabant).—Bommer, C.
Oudoronga R. (Siberia).—Meister, A.
Oudtshoorn (Cape Colony).—Rogers, A. W., &c.
Ouro Preto (Minas Geraes).—Scott, H. K.
Ovibos.—Harlé, É.; Michael, R.
Ox, fossil.—Lydekker, R.
Oxfordshire.—Bell, A. M.; Blake, J. F.; Walford, E. A.
Oxyclymenia.—Frech, F.
Oxynautilus.—Mojsisovics, E. von.
Oxynoticeras.—Fucini, A.
Oxyrhina.—Stefano, G. de; Stromer, E.
Oxytoma.—Waagen, L.
Oyster Bay (N.Y.).—Woodworth, J. B.
Ozark District (U.S.A.).—Van Hise, C. R., &c.

Pachyæna.—Matthew, W. D.
Pachybiotherium & *Pachyzædyus.* — Ameghino, F.
Pachycardium.—Hill, R. T.
Pachycynodon.—Schlosser, M.
Pachydiscus.—Liebus, A., &c.; Petrascheck, W.; Sturm, F.
Pachynolophus.—Depéret, C.; Schlosser, M.
Pachypora.—Počta, P.
Pacific Ocean. — Agassiz, A.; Mœhle, F.; Murray, Sir John; Stirling, J.; Thomson, W. C.
Pagiophyllum.—Hill, R. T.
Paglau (E. Prussia).—Wolff, W.
'Pagoda Stone,' Chinese.—Gerrard, J.

Paintings, palæolithic cave.—Anon., 54; Capitan, L., &c.; Koken, E.; Moissan, H.; Rivière, E.
Paints, mineral.—Parker, E. W.
Pajaro (Cal.).—Reid, J. A.
Palæocardia & *Palæomastodon*.—Ameghino, F.
Palæochœrus & *Palæomeryx*.—Schlosser, M.
Palæodictyon.—Sacco, F.
Palæolobium.—Engelhardt, H.
Palæomyces.—Renault, B.
Palæoneilo.—Bittner, A.; Weller, S.
'Palæontologia universalis.'—Van den Broeck, E.
Palæontology, American, 1892–1900.—Weeks, F. B.
——, evolution &.—Gratacap, L. P.; Hutton, F. W.
——, 100 years' history of.—Capellini, G.
——, photography &.—Van Ingen, G.
——, Scottish.—Peach, B. N.
——, S. American.—Villareal, F.
——, text-books.—Cole, G. A. J.; Rickman, T. M.; Woods, H.; Zittel, K. A. von.
Palæopeltis.—Ameghino, F.
Palæopsammia.—Quaas, A.; Wanner, J.
Palæoschisma.—Donald, J.
Palæoscincus.—Lambe, L. M.
Palæosinopa.—Matthew, W. D.
Palæosolen.—Maurer, F.
Palæotherium, *Palæotriton* & *Paloplotherium*.—Schlosser, M.
Palæozoic rocks, Africa (S.).—Gibson, W.
—— shallow seas, Arizona.—Blake, W. P.
Palæpanorthus.—Ameghino, F.
Palagonite-formation, Iceland.—Pjetursson, H.
Palana (Bikaneer).—Clarke, R. W.
Palcochelys.—Lóczy, L. von.
'*Paleotrochis*.'—Ordóñez, E.
Palestine.—Anon., 45; Wilson, Sir C. W.
Palissya.—Shirley, J.
Palni Hills (Madras).—Warth, H.
Paludestrina.—Pallary, P.
Paludina.—Choffat, P.; Wahnschaffe, F.
Paludomus.—Cossmann, M.
Pampas, Brazil.—Huber, J.
Panama, Isthmus of (C. Am.).—Hudleston, W. H.
Panax.—Engelhardt, H.
Pannonian.—Lœrenthay, E.
Panopæa.—Brœgger, W. C., &c.; Ortmann, A. E.; Sturm, F.
Pantolambda.—Douglas, E.
Pantostylops.—Ameghino, F.
Papatu (N.Z.).—Macleod, H. N.
Paper-coal, Sicily.—Pampaloni, L.
Papyrotheca.—Lœrenthay, E.
Paquiericeras.—Sayn, G.
Parabderites & *Paratætus*.—Ameghino, F.
Paracale (Luzon I.).—Rinne, F.
Paracladiscites.—Mojsisovics, E. von.
Paracyathus.—Gane, H. S.
Paracyclas.—Maurer, F.; Œhlert, D. P.
Paradoxides.—Grœnwall, K. A.; Holm, G., &c.
Paragelocus.—Schlosser, M.
Parages (Brabant).—Van den Broeck, E.
Parahoplites.—Liebus, A., &c.
Paranautilus.—Mojsisovics, E. von.
Pardubitz (Bohemia).—Hinterlechner, K.
Pareiosaurus & *Pectenosaurus*.—Huene, F. von.
Pargnan (Aisne).—Leriche, M.
Pari (Tuscany).—Angelis d'Ossat, G. de.
Paris Basin.—Boule, M.; Cossmann, M.; Grossouvre, A. de; Leriche, M.; Meunier, St.; Ramond, G., &c.; Rutot, A.
Parker (Penn.).—Williams, E. H., Jun.
Parkeria.—Renault, B.
Parnell Grit.—Fox, C. E.
Paropsonema.—Clarke, J. M.
Parthenia.—Brœgger, W. C., &c.
Parva, Glen (Leicester).—Rœchling, H. A.
Parvisipho.—Cossmann, M.
Pasadena (Cal.).—Claypole, E. W.
Pasceolus.—Reed, F. R. C.
Pasco, Cerro de (Peru).—Fort, M.
Pas-de-Calais (France).—Gosselet, J.
Pasochoa (Ecuador).—Reiss, W., &c.
Paso, El (Texas).—Weed, W. H.
Passau (Bavaria).—Rœsler, H.
Patagonia (S. Am.).—Ameghino, F.; Hauthal, R.; Holdich, Sir T. H.; Ihering, H. von; Stanton, T. W.; Stuebel, A.; Tournouër, A.
Patapsco formation, Maryland.—Ries, H.
Patella.—Brœgger, W. C., &c.; Ortmann, A. E.
Patellostium.—Weller, S.
Paterophyllum.—Počta, P.
Paterula.—Ruedemann, R.
Patriofelis.—Wortman, J. L.
PATTISON, S. R. *See* Anon., 11; Woodward, H. B.
Patuxent formation, Maryland.—Ries, H.
Paulgervaisia.—Ameghino, F.
Pavia (Lombardy).—Tacconi, E.
Pavonina.—Schubert, R. J.
PEABODY Museum, MARSH Collection.—Wortman, J. L.
Peak Forest (Derby).—Barnes, J.
Peat-bog flora.—Conwentz, H.; Renault, B.
Peat, Denmark.—Hartz, N.; Madsen, V.
——, Elbe.—Meunier, F.
——, Finland & Sweden.—Lagerheim, G.
——, Ireland.—Anon., 45; Johnson, T.; Præger, R. Ll.
——, Norway.—Strangland, G. E.
——, Prussia (W.).—Borntrager, H.; Conwentz, H.

Peat, Westbury-on-Severn. — Buckman, S. S., &c.
Pebbles, windworn Triassic, Elgin. — Mackie, W.
——, N. German gravels with Triassic.— Linstow, O. von.
——, striated.—Meunier, St.
Pechoraland (Russia).—Lebedev, N.
Pecopteris.—Shirley, J.
Pecten.—Bittner, A.; Brœgger, W. C., &c.; Dainelli, G.; Deninger, K.; Gortani, M.; Hunt, A. R.; Hutton, F. W.; Loriol, P. de, &c.; Nœtling, F.; Ortmann, A. E.; Quaas, A. Ravn, J. P. J.; Schaffer, F.; Simionescŭ, J.; Stanton, T. W.; Stefani, C. de; Strahan, A., &c.; Trentanove, G.; Wanner, J.; Wollemann, A.; Woods, H.
Pectolite.—Clarke, F. W., &c.; Moses, A. J.
Pectunculus.—Dainelli, G.; Deninger, K.; Ravn, J. P. J.
Peel (I. of Man).—Dawkins, W. B.
Pegmatite.—Brugnatelli, L.; Reid, J. A.; Watson, T. L.
Pehuenia.—Roth, S.
Pelé, Mt. (Martinique). *See* Martinique.
Pelion, Mt. (Tasm.).—Waller, G. A.
Pelorosaurus.—Sauvage, H. E.
Peltecœlus & *Peltephilus.*—Ameghino, F.
Peltura.—Holm, G., &c.
Pelycosauria.—Case, E. C.
Pena Valley (Venetia).—Longhi, P.
Pendleside Group.—Hind, W.; Wellburn, E. D.
Peneplains, France.—Davis, W. M.
Peneroplis.—Friedberg, W.
Pennine Alps. *See* Alps.
—— faults.—Kendall, P. F.
—— Range.—Hind, W.
PENNING, W. H. *See* Anon., 12.
Pennsylvania (U.S.A.).—Beecher, C. E.; Geikie, J.; Leverett, F.; Lyman, B. S.; Mabery, C. F.; Stevenson, J. J.; Williams, E. H., Jun.; White, D.; Van Hise, C. R.
Penrhyn (Caernarvon).—Elsden, J. V., &c.; Reade, T. M.
Pentacrinus.—Quaas, A.; Remeš, M.
Pentagonaster.—Hall, T. S.
Pentamerus-'quartzite.' — Hartz, —; Lotz, H.
Pentchenga R. (Siberia).—Ijitzk, C.
Pentremitidea.—Œhlert, D. P.
Penzance (Cornwall).—Hill, J. B.
Peppermint Bay (Tasmania).—Hogg, E. G.
Perak (Malay Peninsula).—Hume, W. J. P., &c.
Peratotoma.—Cossmann, M.
Pericosmus.—Airaghi, C.; Oppenheim, P.
Peridotite.—Kemp, J. F.; Pratt, J. H.; Twelvetrees, W. H.
Periechocrinus.—Wanner, J.
Périgueux (Dordogne). — Michel-Lévy A., &c.
Perim I. (Red Sea).—Raisin, C. A.
Periploma.—Brœgger, W. C., &c.
Peripristes.—Eastman, C. R.
Perisphinctes.—Loriol, P. de, &c.
Perm (Russia).—Duparc, L., &c.
Permian, Africa (S.).—Bastin, E. S.
—— breccias.—Bonney, T. G.; Kendall, P. F.
——, Devon, &c.—Thomas, H. H.
——, Hérault.—Collot, —.
——, Holland.—Mueller, G.
——, Hungary.—Pálfy, M. von.
——, Kansas.—Prosser, C. S.
——, Laramie Plains.—Knight, W. C.
——, Man (I. of).—Dawkins, W. B.
——, occurrence of.—Frech, F.
——, Pennine faults &.—Kendall, P. F.
——, Spain.—Mallada, L.
——, Texas.—Girty, G. H.
——, Tyrol.—Gordon, M. M. O.
Permo-Carboniferous, India.—Zeiller, R.
——, Mexico.—Johnson, D. W.
——, New South Wales.—Arber, E. A. N.
——, Queensland.—Shirley, J.
——, Sardinia.—Arcangeli, G.
——, Tasmania.—Johnston, R. M.
Perna.—Frech, F.; Loriol, P. de, &c.; Ortmann, A. E.; Reis, O. M.
Pernambuco (Brazil).—Branner, J. C.
Pernopecten.—Weller, S.
Peroniceras.—Sturm, F.
Peronopora.—Cumings, E. R.
Peronosporites.—Loomis, F. B.
Persia.—Blanford, W. T.; Bonney, T. G.; Gauthier, V.; Sykes, P. M.
Persoonia.—Deane, H.
Perth (Scotland).—Macnair, P.
Peru (S. Am.).—Balta, J.; Fort, M.; Hoskold, C. A. L.; Letts, R. F.; Loredo, J. A.; Olaechea, T.; Raimondi, A., &c.; Stuebel, A.; Torrico-y-Mesa, J.
Petraia.—Počta, P.
Petrographical Institutions, Austria & Germany.—Morozevich, I.
—— microscope-wedge.—Wright, F. E.
Petrography, nineteenth century development.—Cross, W.; Teall, J. J. H.
Petroleum, Africa (W.) & Indo-China, French.—Pelatan, L.
——, Algeria.—Brives, A.
——, Angola, S. Thomé, & Timor. — Macedo, J. de.
——, Asia (Central). — Veillet-Dufrèche, —.
——, Assam.—Griesbach, C. L.
——, Austria-Hungary.—Adda, K. von; Pálfy, M. von.
——, Canada.—Bell, R., &c.
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——, China.—Reid, A.
——, Colorado & New Mexico.—Lakes, A.

Petroleum, geology of.—Muck, J.
——, Italy.—Crema, C.
——, Japan.—Kochibe, T., &c.
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——, Pennsylvania. — Mabery, C. F.; Oliphant, F. H.
——, Texas, &c.—Adams, G. I.
——, Turkey.—English, T.
——, Washington (U.S.A.).—Landes, H.
——, World.—Neuberger, H., &c.
——. *See also* Oil-shale, &c.
Petrological ideas, evolution of.—Teall, J. J. H.
Petrology, American, 1892 - 1900. — Weeks, F. B.
——, text-book.—Cole, G. A. J.
Petterdite.—Twelvetrees, W. H.
Pézenas (Hérault).—Depéret, C.
Phacops.—Drevermann, F.
Phakolite.—Zambonini, F.
Phalacrocidaris.—Lambert, J.
Phaleropygus.—Loriol, P. de.
Phanerotinus.—Weller, S.
Phenococeras.—Frech, F.
Philine.—Brœgger, W. C., &c.
Philippine Is.—Karuth, F.; Rinne, F.
Phillipsastræa.—Počta, P.
Phillipsia.—Woodward, H.
Phillipsite.—Zambonini, F.
Phiomia.—Andrews, C. W.
Phlaocyon.—Matthew, W. D.
Phlegræan Fields (Campania).—Guenther, R. T.; Manasse, E.
Phoca.—Munthe, H.
Phœnicopsis.—Krasser, F.
Pholadidea.—Ravn, J. P. J.
Pholadomya.—Dainelli, G.; Hill, R. T.; Quaas, A.; Sturm, F.; Wollemann, A.
Pholas.—Brœgger, W. C., &c.; Choffat, P.
Pholidops.—Clarke, J. M.
Phonolite, Madagascar.—Lacroix, A.
Phosphates, Algeria.—Coignard, —, &c.; Pelatan, L.; Pervinquière, L.
——, Arkansas.—Branner, J. C., &c.
——, Bornholm.—Grœnwall, K. A.
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——, French Guiana.—Pelatan, L.
——, Germany.—Kruft, L.
——, Hainault.—Cornet, J.
——, Nord.—Rabelle, A.
——, Pays de Bray.—Mercey, N. de.
——, Skye (I. of).—Woodward, H. B.
——, soils &.—Sutherst, W. F.
——, Tennessee.—Eckel, E. C.; Hayes, C. W.
——, Tunis.—Pervinquière, L.
Phosphatic chalk, Aisne.—Gosselet, J.; Leriche, M.; Mercey, N. de.
—— nodules, Silurian.—Kruft, L.
—— rock, Yoredale.—Rhodes, J.
Photographs, geological. — Anon., 44; Watts, W. W.; Wheeler, A. O.
Photography, palæontology &. — Van Ingen, G.
Phragmites.—Engelhardt, H.
Phragmoceras.—Weller, S.
Phragmoteuthis.—Mojsisovics, E. von.
Phycopsis.—Lorenz, T.
Phyllangia.—Gane, H. S.
Phyllobrissus & *Phymosoma.*—Lambert, J.
Phyllocarida, Palæozoic.—Allen, H. A.; Beecher, C. E.
Phylloceras. — Fucini, A.; Ravn, J. P. J.; Remeš, M.; Sarasin, C.; Sayn, G.
Phyllodus.—Priem, F.
Phyllograptus.—Elles, G. L., &c.; Holm, G., &c.; Strandmark, J. E.
Phyllotheca.—Anderson, W.; Arber, E. A. N.; Zeiller, R.
Physocardia.—Frech, F.
Pianosa, I. of (Italy).—Neviani, A.
Piave R. (Venetia).—Stella, A.
Picardy (France).—Gosselet, J.; Leriche, M.
Picotite-basalt, Bavaria.—Sœllner, J.
Picunia.—Roth, S.
Piedmont (Italy).—Airaghi, C.; Audenino, L.; Bœris, G.; Bonney, T. G.; Brugnatelli, L.; Checchia, G.; Colomba, L.; Novarese, V.; Piolti, G.; Rœsler, H.; Sacco, F.; Tornquist, A.; Zambonini, F.
Piedra Pintada (Argentina).—Roth, S.
Pieris.—Radcliffe-Grote, A.
Pierrerue (Hérault).—Depéret, C.
Pietermaritzburg (Natal).—Anderson, W.
Piezocrystallization.—Weinschenk, E.
Pikermi (Greece). — Major, C. I. F.; Woodward, A. S.
Pila.—Renault, B.
Pileolus.—Choffat, P.
Pilkington (Lancs.).—Pickstone, W.
Pillar, tuff with sandstone-.—Eck, H.
Pimetodus.—Leriche, M.; Priem, F.
Pinacoceras.—Mojsisovics, E. von.
Pinna.—Sturm, F.
Pinnoite.—Van't Hoff, J. H., &c.
Pipestone (Montana).—Douglass, E.
Piquetberg (Cape Colony).—Schwarz, E. H. L.
Pironaia.—Hilber, V.
Pisidium.—Lœrenthay, E.; Madsen, V., &c.
Pithecanthropus.—Amœdo, G.
Pitheculites.—Ameghino, F.
Pithonella.—Lorenz, T.
Placentian.—Audenino, L.
Placenticeras.—Sturm, F.
Placers, California.—Bordeaux, A.; Hershey, O. H.
——, Colorado.—Lakes, A.
——, W. Australia.—Wells, R. N.
Placid, Lake (N.Y.).—Kemp, J. F.
Placochelys.—Jækel, O.
Placodus.—Huene, F. von.
Placophyllum.—Simpson, G. B.
Placopsilina.—Chapman, F.
Placuna.—Schaffer, F.

Placunopsis.—Bittner, A.; Janensch, W.; Ravn, J. P. J.

Plagioclase.—Wuelfing, E. A.

Plain, great Prussian.—Cole, G. A. J.

Plains, American (N.).—Hatcher, J. B.; Johnson, W. D.; Newell, F. H.

——, —— (S.).—Huber, J.

Planorbis.—Andrusov, N.; Lœrenthay, E.; Pallary, P.; Wesenberg-Lund, C.

Plants, bog-.—Præger, R. Ll.

——, borates & fossil.—Raeymaeker, D.

——, Carboniferous.—Arber, E. A. N.; Bommer, C.; Fischer, F.; Guerich, G.; Gwynne-Vaughan, D. T.; Kerner, F. von; Kidston, R.; Nathorst, A. G.; Potonié, H.; Renault, B.; Scott, D. H.; Sellards, E. H.; Seward, A. C.; Stainier, X.; Sterzel, J. T., &c.; Weiss, F. E.; Westermaier, M.; Zeiller, R.

——, Cretaceous.—Darton, N. H.; Hill, R. T.; Lorenz, T.; Rutot, A.; Seward, A. C., &c.

——, determination and variability of characters.—Bommer, C.

——, Devonian.—Matthew, G. F.; Nathorst, A. G.; Nevius, J. N.; Potonié, H.; Prosser, C. S.; Renier, A.

——, evolution &.—Potonié, H.; Westermaier, M.

——, Jurassic.—Fliche, P.; Lorenz, J. R. von; Nathorst, A. G.; Remeš, M.; Roth, S.; Seward, A. C., &c.; Shirley, J.; Van den Broeck, E.

——, lake deposits &.—Passarge, S.; Youse, L.

——, lime-producing.—Wesenberg-Lund, C.

——, Permo-Carboniferous.—Anderson, W.; Arber, E. A. N.; Arcangeli, G.; Shirley, J.; Sterzel, J. T., &c.; Zeiller, R.

——, Quaternary.—Bell, A. M.; Buckman, S. S., &c.; Clerici, E.; Conwentz, H.; Cullis, C. G., &c.; Hartz, H.; Hollick, A.; Lagerheim, G.; Longe, F. D.; Reid, C.

——, Scandinavian distribution.—Sernander, R.

——, Scottish post-Glacial.—Niven, W. N.

——, Silurian.—Loomis, F. B.

——, soils &.—Dorner, H. B.; Hall, A. D.; Hardy, M.

——, submerged forest.—Longe, F. D.; Newton, E. T.

——, Tertiary.—Bommer, C.; Cullis, C. G.; Deane, H.; Engelhardt, H., Kissling, E.; Liebus, A.; Newton, R. B.; Palibin, I. V.; Pampaloni, L.; Pfaff, F.; Shirley, J.; Turner, H. W.

——, Triassic.—Seward, A. C., &c.

——, Wealden.—Anon., 14.

Plasticity, of rocks.—Graber, H. B.; Weinschenk, E.

Plateau, Icelandic-Norwegian submarine.—Nansen, F.

Plateaux, Berkshire & Surrey gravel-.—Monckton, H. W.

Platinum, British Columbia, United States, &c.—Kemp, J. F.

——, Norway.—Vogt, J. H. L.

——, Urals.—St. Rainer, L.

Platt, F. *See* Frazer, P.

Platyceras.—Clarke, J. M.; Drevermann, F.

Platypeltis.—Groom, T. T.

Platyschisma.—Weller, S.

Platystrophia.—Cumings, E. R.

Plaxiphora.—Ashby, E.

Plectambonites.—Ruedemann, R.

Plectofrondicularia.—Liebus, A.

Pleistocene. *See* Quaternary.

Plesiochelys.—Sauvage, E.

Plesiosaurus.—Huene, F. von.

Plesioxotodon.—Roth, S.

Plethodidæ.—Quaas, A.

Pleuromya-—Bittner, A.; Choffat, P.; Cossmann, M.; Gortani, M.; Ortmann, A. E.; Quaas, A.; Ravn, J. P. J.; Stanton, T. W.; Toula, F.; Wanner, J.

Pleuronautilus.—Mojsisovics, E. von.

Pleuronectites.—Salomon, W.

Pleurosigma.—Pantocsek, J.

Pleurostylodon & *Pleurystomus.*—Ameghino, F.

Pleurotomaria.—Dainelli, G.; Deninger, K.; Donald, J.; Loriol, P. de, &c.; Schlosser, M.; Ravn, J. P. J.; Weller, S.

Plicatocrinus.—Remeš, M.

Plicatula.—Quaas, A.; Reis, O. M.

Pliocene, French & Swiss Subalpine.—Preller, C. S. DuR.

——. *See* Tertiary.

Pliodolops.—Ameghino, F.

Plœsconia.—Renault, B.

Plumas Co. (Cal.).—Lawson, A. C.

Plumbojarsite.—Hillebrand, W. F., &c.

Pniel (Cape Colony).—Schwarz, E. H. L.

Po alluvium, Italy.—Toldo, G.

Poacites.—Engelhardt, H.

Poacordaites.—Kidston, R.

Podocarpus.—Deane, H.

Podolia Gov. (Russia).—Laskarev, V.

Podozamites.—Hill, R. T.; Krasser, F.

Pœderlian.—Van Ertborn, O.

Pœhlmann, R. *See* Fuerstenberg, P.

Point-de-Galle Group.—Coomáraswámy, A. K.

Poitiers, ancient strait of (France).—Grossouvre, A. de.

Poland (Russian).—Julien, G. I.; Rehbinder, B. von.

Polar Basin.—Nansen, F.

Pollen, fossil.—Renault, B.

Pollicipes.—Remeš, M.; Ruedemann, R.; Wanner, J.

Polonio, Cape (Uruguay).—Arçtowski, H.

Polydora.—Rovereto, G.

Polygonal surface-cracks.—Fries, T. M

Polygyrina.—Schlosser, M.

Polymorphina.—Fornasini, C.; Friedberg, W.; Procházka, V. J.
Polyphyma.—Groom, T. T.
Polyplacophora, Tertiary.—Ashby, E., &c.
Polypora.—Condra, C. B.
Polystomella.—Procházka, V. J.
Polytropa.—Brœgger, W. C., &c.
Pomatias.—Jooss, C.
Pomerania (Prussia).—Gagel, C.; Keilhack, K.; Linstow, O. von; Schmidt, M.
Pomperaug Valley (Conn.).—Hobbs, W. H.
Pontian, Hungary.—Hœrnes, R.
Pontobdellopsis.—Ruedemann, B.
Popogna (Tuscany).—Trentanove, G.
Porcellia.—Weller, S.
Porcupine Bank (Atlantic).—Green, W. S.
Porella.—Maplestone, C. M.
Porina.—Canu, F.; Wanner, J.
Porocidaris.—Oppenheim, P.
Porocrinus.—Schuchert, C.
Poromya.—Quaas, A.
Porotemnus.—Ameghino, F.
Porphyrite, Tyrol.—Gordon, M. M. O.; Romberg, J.
——, Victoria (Austral.).—Mennell, F. P.; Stirling, J.
Porphyry, Asia Minor.—Achiardi, G. d'.
——, Hesse.—Klemm, G.
——, Leicester.—Rœchling, H. A., &c.
——, Namaqualand.—Schenck, A.
——, Quebec.—Dresser, J. A.; Le Roy, O. E.
——, Queensland, &c.—Andrews, E. C.
——, Rumania.—Nicolau, T.
——, Silesia.—Dathe, E.
——, Thuringia.—Schlegel, K.; Wichdorff, H. H. von.
Portaferry (Co. Down).—Welch, R.
Portage Beds, New York.—Clarke, J. M.
Port Elizabeth (Cape Colony).—Rogers, A. W., &c.
Port Hills (N.Z.).—Page, S.
Portland cement-industry, Tournai.—Anon., 63.
Portlandia.—Brœgger, W. C., &c.
Portofino, Mte. (Umbria).—Ristori, G.
Portugal.—Albuquerque d'Orey, F. de; Choffat, P.; Macpherson, J.; Rœsler, H.; Souza-Brandão, V. de; Tenne, C. F. A., &c.; Werneke, —.
Portuguese Colonies.—Macedo, J. de.
Poschiavo (Grisons).—Bodmer-Beder, A.; Tarnuzzer, C.
Posen (Prussia).—Krug, —; Milthers, V., &c.
Posidonomya.—Weller, S.
Pössueck (Thuringia).—Zimmermann, E.
Post-Glacial deposits, Belfast.—Præger, R. Ll.
—— plants, Scotland.—Niven, W. N.
Posteutatus.—Ameghino, F.
Potamides.—Andrusov, N.; Pallary, P.
Potamogeton.—Hartz, N.
Potaro R. (British Guiana).—Harrison, J. B.
Potash-deposits, Germany.—Kloos, J.; Van't Hoff, J. H., &c.; Westphal, J.
Potenza (Basilicata).—Crema, C.
Potholes. *See* Giant's Kettles.
Potomac Group, Maryland.—Ries, H.
Poverty (N.Z.).—Mackay, A.
Powell, J. W. *See* Anon., 13; Brewer, W. H.; Gilbert, G. K.
Prangenau (E. Prussia).—Wolff, W.
Pre-Cambrian. *See* Archæan.
Precious stones, artificial.—Verneuil, A.
—— ——, United States, &c.—Kunz, G. F.; Tassin, W.; Williams, A. V.
—— ——. *See also* Diamonds, &c.
Predazzo (Tyrol).—Ippen, J. A.; Romberg, J.
Pregnellus.—Hill, R. T.
Prehnite.—Billows, E.; Rimatori, C.
Prenaster.—Airaghi, C.
Preolenna (Tasm.).—Waller, G. A.
Prestwichia.—Beecher, C. E.
Prieska (Cape Colony).—Rogers, A. W., &c.
Primitia.—Ruedemann, R.
Prince Albert (Cape Colony).—Schwarz, E. H. L.
Prince Rudolph I. (Arctic).—Colomba, S.
Princes I. (Gulf of Guinea).—Macedo, J. de.
Princeton University Expeditions.—Stanton, T. W.
Prionolepis.—Woodward, A. S.
Prismatophyllum.—Simpson, G. B.
Proarcestes.—Longhi, P.
Proasmodeus, *Prochalicotherium*, & *Procladosictis.*—Ameghino, F.
Procamelus.—Matthew, W. D.
Procerosaurus.—Huene, F. von.
Procolophon.—Huene, F. von.
Productella.—Weller, S.
Productus.—Dun, W. S.; Weller, S.
Proëtus.—Drevermann, F.; Woodward, H.
Prohyracotherium, *Prolicaphrium*, *Promysops*, *Proplanodus*, & *Propyrotherium.*—Ameghino, F.
Prolecanites.—Frech, F.
Prolobites.—Drevermann, F.; Frech, F.
Promacrus.—Weller, S.
Promathildia.—Gortani, M.
Promephites.—Schlosser, M.
Promerycochœrus.—Matthew, W. D.
Proneusticosaurus.—Volz, W.
Promina, Monte (Dalmatia).—Dainelli, G.; Oppenheim, P.
Propalæotherium.—Depéret, C.
Propappus & *Proterosaurus.*—Huene, F. von.
Propilidium.—Brœgger, W. C., &c.
Propora.—Počta, P.
Proscalops.—Matthew, W. D.
Proschismotherium, *Prospaniomys*, & *Prostegotherium.*—Ameghino, F.

Prosocœlus.—Maurer, F.
Prososthenia.—Lœrenthay, E.
Prostylophorus.—Roth, S.
Protacaremys, Protadelphomys, Protemnus, Proteodidelphys, Protoatherium, & Protobradys.—Ameghino, F.
Protapirus.—Schlosser, M.
Protocardia.—Broili, F.; Quaas, A.; Redlich, K. A.; Strahan, A., &c.; Sturm, F.
Protocardium.—Loriol, P. de, &c.
Protohippus.—Gidley, J. W.
Protolabis & Protomeryx.—Matthew, W. D.
Protoindris.—Lorenz, L. von.
Protosphyræna.—Quaas, A.
Protostega.—Williston, S. W.
Protula.—Rovereto, G.
Protulophila.—Neviani, A.; Rovereto, G.
Provence (France). — Michalet, A.; Repelin, J.; Sayn, G.
Provins (Seine-et-Marne).—Michel-Lévy, A., &c.; Thomas, H.
Prozædyus.—Ameghino, F.
Prussia (Germany).—Anon., 26; Cole, G. A. J.; Gagel, C.; Jentzsch, A.; Klautzsch, A.; Krause, P. G.; Maas, G.; Milthers, V., &c.; Weissermel, W.; Wolff, W.
Prussian Stone- & Coal-fall Commission. —Behrens, —, &c.; Dobers, —, &c.; Illner, —, &c.
Psammechinus.—Airaghi, C.; Lambert, J.
Psammobia.—Brœgger, W. C., &c.; Ortmann, A. E.
Pselophyllum.—Počta, P.
Pseudælurus, Pseudocyon, & Pseudogelocus.—Schlosser, M.
Pseudamnicola.—Pallary, P.
Pseudarietites.—Frech, F.
Pseudentatus, Pseudhippus, & Pseudolops.—Ameghino, F.
Pseudoborhyæna, Pseudocladosictis, Pseudostegotherium, & Pseudothylacinus.—Ameghino, F.
Pseudobornia.—Nathorst, A. G.
Pseudoclymenia.—Drevermann, F.
Pseudodiadema.—Hill, R. T.
Pseudogaylussite.—Flett, J. S.
Pseudoliva.—Quaas, A.
Pseudomelania.—Longhi, P.; Schlosser, M.; Sturm, F.
Pseudomesolite.—Gaubert, P.
Pseudomonotis.—Bittner, A.; Diener, C.
Pseudomorphs.—Dœll, E.; Frenzel, A.; Pelikan, A.; Sustchinski, P. von.
Pseudopithecus.—Roth, S.
Pseudosciurus.—Schlosser, M.
Pseudotextularia.—Liebus, A.
Pseudotoma.—Cossmann, M.
Psychotriphyllum.—Deane, H.
Pteridorachis.—Nathorst, A. G.
Pterinea.—Drevermann, F.; Reed, F. R. C.
Pterinopecten.—Clarke, J. M.; Weller, S.
Pterodactyl, Cretaceous.—Williston, S. W.
Pteronites, Ptychodesma, & Pugnax.—Weller, S.
Pteropelyx & Ptilodus.—Lambe, L. M.
Pteropod-ooze.—Murray, Sir John.
Pterygometopus.—Ruedemann, R.
Ptilolite.—Colomba, L.
Ptychodus & Puzosia.—Liebus, A. &c.
Ptychoparia.—Beecher, C. E.; Grœnwall, K. A.; Woodward, H.
Ptychosiagum.—Broom, R.
Ptygmatis & Purpurina.—Choffat, P.
Puelia & Pyramidon.—Roth, S.
Puella.—Drevermann, F.; Potonié, H.
Pugnellus.—Quaas, A.
Puisaye, La (Yonne).—Peron, A.
Pulchellia.—Petrascheck, W.; Sarasin, C.
Pulvinulina. — Chapman, F.; Friedberg, W.; Liebus, A.
Puncturella.—Brœgger, W. C., &c.
Punjab (India). — Griesbach, C. L.; Seeley, H. G.
Purbeck, I. of (Dorset).—Hudleston, W. H.; White, H. J. O.
Puruni R. (British Guiana).—Harrison, J. B.
Puy-de-Dôme (Auvergne). — Cullis, C. G., &c.; Launay, L. de.
Pycnodonta, Jurassic.—Sauvage, H. E.
Pycnodontides.—Leriche, M.
Pycnodus.—Leriche, M.; Priem, F.
Pycnosaccus.—Wanner, J.
Pygaulus & Pygurus.—Loriol, P. de.
Pyrargyrite.—Mœsz, G.
Pyrenees (French).—Belloc, É.; Bertrand, L.; Bresson, A.; Caraven-Cachin, A.; Dallemagne, H.; Stuart-Menteath, P. W.
Pyrgulifera.—Choffat, P.
Pyrites.—Albuquerque d'Orey, F. de; Bergeat, A.; Buttgenbach, H.; Coignard, —, &c.; Collins, J. H.; Freyn, R.; Goldschmidt, V., &c.; Johnsen, A.; Klockmann, F.; Mœsz, G.; Moser, L. K.; Novarese, V.; Parker, E. W.; Stainier, X.; Stokes, H. N.
Pyromorphite.—Klein, C.; Turner, H. W.; Zimányi, K.
Pyrophyllite.—Clarke, F. W., &c.
Pyrotherium.—Ameghino, F.
Pyroxene.—Moses, A. J.
Pyroxenite.—Bodmer-Beder, A.; Kemp, J. F.; Piolti, G.; Twelvetrees, W. H.
Pyrrhotite.—Waller, G. A.
Pyrula.—Ortmann, A. E.; Sturm, F.
Pyxilla.—Pantocsek, J.

Quadrata, Alp (Grisons). — Bodmer-Beder, A.; Tarnuzzer, C.
Quadrula.—Lagerheim, G.
Quagga, extinct.—Lydekker, R.
Quang-Si (China).—Leclère, A.
Quantock Hills (Somerset). — Richardson, L.
Quarries, Great Britain, &c.—Atkinson, J. B.; Foster, C. Le N., &c.; Hall, H.

Quartz.—Anon., 62; Achiardi, G. d'; Berg, G.; Craig, E. H. C.; Freyn, R.; Friedel, G.; Fromme, J.; Gonnard, F.; Johnsen, A.; Milch, L.; Moser, L. K.; Rinne, F.; Rosiwal, A.; Spezia, G.; Van Hove, —.
——, etched figures.—Buttgenbach, H.
Quartz-diorite, Donegal.—Cole, G. A. J.
——, Elgin.—Hinxman, L. W., &c.
——, Thuringia.—Luedecke, O.
Quartz-porphyry.—Klemm, G.; Washington, H. S.
Quartz-schists.—Parkinson, J.
Quiburis, Lake, ancient (Arizona).—Blake, W. P.
Quicksands, Belgium, &c.—Casse, A.; Feret, R.; Fiévez, C. E.; Mourlon, M.; Rabozée, H.
Quicksilver, Algeria.—Pelatan, L.
——, Greece.—Ernst, C. von.
——, New South Wales.—Moses, A. J.
Quartzite, Arctic.—Toll, E. von.
——, Magdeburg.—Denckmann, A., &c.
——, Malvern.—Groom, T. T., &c.
——, Seran.—Martin, K.
——, Thuringia.—Schlegel, K.
—— -limestone Series, California.—Hershey, O. H.
Quaternary, Algeria.—Pallary, P.
——, Baltic.—Holst, N. O.
——, ——. *See also* Denmark, Pomerania, Sweden, &c.
——, Belgium.—Cornet, J.; Fourmarier, P.; Fraipont, J.; Reade, T. M.; Rutot, A.; Van Ertborn, O.
——, Belfast.—Præger, R. Ll.
——, Calabria.—Stefano, G. de.
——, California.—Arnold, D.; Hershey, O. H.
——, China.—Schlosser, M.
——, climates.—Ekholm, N.; Harmer, F. W.
——, Connecticut.—Hitchcock, C. H.
——, Cork Co.—Reade, T. M.
——, Denmark.—Harder, P.; Hartz, N., &c.; Madsen, V.; Milthers, V.; Wesenberg-Lund, C.
——, Don Cossack Prov.—Pavlov, A. V.
——, East Anglia.—Harmer, F. W.; Monckton, H. W.
——, Fife.—Geikie, Sir A.
——, Germany (N.).—Geinitz, E.; Jentzsch, A.; Michael, R.; Milthers, V., &c.; Wuest, E.
——, Gloucestershire.—Buckman, S. S., &c.
——, Hertfordshire.—Chapman, F.
——, Jura.—Muehlberg, F.
——, Kola Peninsula.—Ramsay, W.
——, Lancashire.—Reade, T. M., &c.
——, Man, I. of.—Wright, J.
——, Netherlands, &c.—Lorié, J.
——, New York.—Ries, H.; Woodworth, J. B.
——, Niagara Falls.—Grabau, A. W.
——, Ontario.—Coleman, A. P.
——, Oxfordshire.—Bell, A. M.
——, Piedmont.—Audenino, L.
Quaternary, Po Basin.—Toldo, G.
——, Schleswig-Holstein.—Gagel, C.; Madsen, V.
——, Somerset.—Kennard, A. S., &c.
——, Sweden.—Hedstrœm H.; Holm, G., &c.
——, Tuscany.—Ricci, A.
——, Victoria (Austral.) marine.—Grant, F. E., &c.
——, Würtemberg.—Haag, F.; Stoller, J.
Quebec (Canada).—Dresser, J. A.; Le Roy, O. E.; Obalski, J.
Queen Charlotte Is. (B.C.).—Prior, E. G.
Queens (N.Y.).—Woodworth, J. B.
Queensland.—Andrews, E. C.; Ball, L. C.; Cameron, W. E.; Dunstan, B.; Jack, R. L.; Maclaren, J. M.; Rands, W. H.; Shirley, J.
Quei-Chow (China).—Leclère, A.
Quercus.—Engelhardt, H.; Palibin, I. V.; Turner, H. W.
Quilindaña (Ecuador).—Reiss, W., &c.

Rachoy, J. *See* Vacek, M.
Råda, Lake (Svealand).—Dahl, C. G.
Radau Valley (Harz).—Fromme, J.
Radeldorf (Styria).—Engelhardt, H.
Radiolaria, Permian.—Coomáraswámy, A. K.
——, Silurian.—Kruft, L.
——, Tertiary.—Martin, K.
Radiolarian chert, Culm with.—Ussher, W. A. E.
—— ooze.—Murray, Sir John.
Radiolites.—Dainelli, G.; Hill, R. T.; Wanner, J.
Radnorshire.—Cantrill, T. C.
Radotin (Bohemia).—Petrascheck, W.; Slavik, F.
Radstädter Tauern (Salzburg).—Vacek, M.
Rafinesquina.—Ruedemann, R.
Räfvåla (Dalarne).—Beck, R.
Ragazzoni, G. *See* Parona, C. F.
Ragusa (Sicily).—Gemmellaro, G. G.
Raibl Beds, Carniola.—Kossmat, F.
Raiblian.—Gortani, M.
Railton (Tasmania).—Johnston, R. M.
Raised beach, Devon.—Hunt, A. R.
——, Fife.—Geikie, Sir A.
——, Finland.—Hammarstrœm, R.
——, Gower.—Monckton, H. W.
——, Ontario.—Coleman, A. P.
——, Sweden.—Hedstrœm, H.
Ramacca (Sicily).—Viola, C.
Rambow (W. Prussia).—Weissermel, W.
Rammelsberg (Harz).—Bergeat, A.
Rampur Coalfield (India).—Reader, G. F.
Ramsey (I. of Man).—Wright, J.
Rand Hill (N.Y.).—Cushing, H. P.
Rangifer.—Anon., 54; Capitan, L.; Hartz, N.; Koken, E; Rivière, E.; Schlosser, M.
Rankelia.—Roth, S.

Rapakivi-diabase, Finland. — Frosterus, B.
Raphitoma.—Brœgger, W. C., &c.; Cossmann, M.; Grœnwall, K. A.
Raritan formation, Maryland.—Ries, H.
Rastenberg (Weimar).—Michael, P.
Rastenburg (E. Prussia).—Klautzsch, A.
Rastrites.—Holm, G., &c.
Rathlin I. (N. Ireland).—Wright, J.
Raton (New Mex.).—Lakes, A.
Read, Mt. (Tasmania).—Williams, L.
Reading (Berks).—Shrubsole, O. A., &c.
Reading Beds, Hants.—Reid, C.
Realgar.—Moses, A. J.
Recherche Bay (Tasm.).—Twelvetrees. W. H.
Red rain, Italy.—Clerici, E.
——. *See also* Dust.
—— sandstones, I. of Man.—Dawkins, W. B.
Red Sea.—Raisin, C. A.
Redhill & Reigate (Surrey).—Stebbing, W. P. D.
Reefs, auriferous, Victoria.—Jenkins, H. C.
Regensburg & Regenstauf (Bavaria).—Pompeckj, J. F.
Reggio (Calabria).—Stefano, G. de.
Régissa (Liége).—Lohest, M.
Reichenhall (Bavaria).—Deninger, K.
Reims (Marne).—Priem, F.
Reinschia.—Renault, B.
Reit (Bavaria).—Deninger, K.
Rélizane (Algeria).—Brives, A.
Remopleurides.—Ruedemann, R.
Remouchamps (Liége).—Van den Broeck, E.
Rench R. (Baden).—Rosenbusch, H.
Rennes (Britanny).—Kerforne, F.
Rensselæria.—Clarke, J. M.; Drevermann, F.; Macmahon, C. A., &c.
Rentwertshausen (Meiningen). — Walther, J.
Reophax.—Friedberg, W.—Grzybowski, J.; Schubert, R. J.
Reptilia, age of.—Zittel, K. A. von.
——, Cretaceous.—Beecher, C. E.; Bell, R., &c.; Kornhuber, A.; Lambe, L. M.; Thevenin, A.; Wieland, G. R.; Williston, S. W.; Yakovlev, N.
——, Jurassic.—Cornet, J., &c.; Fraas, E.; Granger, W., &c.; Jesup, M. K.; Nopčsa, F., jun.; Riggs, E. S.; Sauvage, H. E.; Sheppard, T.; Skiff, F. J. V.; Van den Broeck, E.; Woodward, A. S.
——, N. American fossil.—Hay, O. P.
——, Permian.—Broili, F.; Case, E. C.; Johnston, R. M.; Nopčsa, F., jun.
——, Quaternary.—Buckman, S. S.
——, Tertiary.—Hay, O. P.; Redlich, K. A.; Seguenza, G.; Stefano, G. de.
——, Triassic. — Broom, R.; Huene, F. von; Jækel, O.; Lóczy, L. von; Merriam, J. C.; Volz, W.; Woodward, A. S.
Requienia.—Hill, R. T.
Restorations, mammals & reptilia. — Boule, M.
Reticularia.—Dun, W. S.; Œhlert, D. P.; Weller, S.
Reticulipora.—Ortmann, A. E.
Reuss R. (Switzerland).—Tobler, A.
Reval (Esthonia).—Schmidt, F.
Rhabdammina.—Friedberg, W.; Schubert, R. J.
Rhabdocarpus.—Kidston, R.; Renault, B.
Rhabdocidaris. — Airaghi, C.; Oppenheim, P.
Rhacoceras.—Fucini, A.
Rhacophyllites.—Fucini, A.; Levi, G.; Mojsisovics, E. von.
Rhætian Alps. *See* Alps.
Rhætic, Brazil & Mendoza. — Bodenbender, G.
——, Leicestershire.—Rœchling, H. A.
——, Würtemberg.—Lœrcher, O.
——, Pre-, denudation, Bristol.—Callaway, C.
Rhamnus.—Engelhardt, H.
Rhamphorhynchus.—Woodward, A. S.
Rhayader (Radnorshire).—Cantrill, T. C.
Rhenish Bavaria.—Leppla, A.
Rhenish Prussia.—Drevermann, F.; Elsden, J. V., &c.; Henrich, F.; Illner, —, &c.; Jacob, —; Lorié, J.
Rhine glacier (Switzerland).—Penck, A.
—— River.—Lamothe, — de; Leppla, A., &c.; Lorié, J.; Preller, C. S. Du R.
Rhineastes.—Lambe, L. M.
Rhinoceros.—Pavlov, M.; Schlosser, M.; Seguenza, L.; Toula, F.; Yoshiwara, S., &c.
Rhipidomella.—Clarke, J. M.; Dun, W. S.
Rhizomopteris & *Rhizomorphites.* — Nathorst, A. G.
Rhizophyllum.—Počta, P.
Rhizopoda, Silurian.—Lagerheim, G.
Rhizostomites.—Maas, O.
Rhodesia (S. Africa).—Anon., 27; Kalkovski, E.; Launay, L. de; Mennell, F. P.; Potonié, H.
Rhodonite.—Billows, E.
Rhodope Mts. (Turkey).—Cvijič, J.
Rhön Mts. (Germany).—Sœllner, J.
Rhondda (S. Wales).—Wight, W. D.
Rhône River.—Lamothe, — de; Preller, C. S. Du R.; Sayn, G., &c.
Rhopalodon.—Huene, F. von.
Rhus.—Engelhardt, H.; Turner, H. W.
Rhyncholites.—Remeš, M.
Rhynchonella.—Brœgger, W. C.; Broili, F.; Dainelli, G.; Drevermann, F.; Dun, W. S.; Loriol, P. de, &c.; Macmahon, C. A., &c.; Ortmann, A. E.; Remeš, M.; Sturm, F.
—— *Cuvieri*-zone, Brunswick.—Wollemann, A.
Rhynchonellina.—Mariani, E.
Rhynchopora.—Neviani, A.
Rhynchosaurus.—Woodward, A. S.
Rhynchoteuthis.—Thiot, L.
Rhyolite, California.—Reid, J. A.

Rhyolite, Mexico.—Ordóñez, E.
Rhytinodendron.—Nathorst, A. G.
Ribémont (Aisne).—Rabelle, A.
Rico Mts. (Colo.).—Cross, W., &c.
Ridgeway fault (Dorset).—Darwin, H.
Ries (Bavaria).—Knebel, W. von.
Riesengebirge (Silesia).—Milch, L., &c.
Rigaud Mt. (Quebec).—Le Roy, O. E.
Rileya.—Huene, F. von.
Rillyia.—Cossmann, M.
Rimilla & *Ringicula.*—Wanner, J.
Ring, Lake (Scania).—Hennig, A.
Ringwood (Hants).—Reid, C.
Rio Grande (Brazil).—Frech, F.
Rio Negro (Argentina).—Burckhardt, C.
Ripidomella.—Weller, S.
Ripple-marks.—Emerson, B. K.; Moore, J., &c.
Rissoa & *Rissostomia.*—Brœgger, W. C., &c.
Riu-Kiu Is. (N. Pacific).—Newton, R. B.; Yoshiwara, S.
Riva, C. *See* Salmon, W.
River-curves, &c.—Callaway, C.; Heiney, W. M.
River-development.—Buckman, S. S.; Lake, P.; Sherborn, C. D.; Strahan, A.; White, H. J. O.
River-erosion.—Ball, J.; Dallemagne, H.; Steinmann, G.; Todd, J. E.; Upham, W.
——. *See also* Erosion, Valleys, &c.
River-robbing, Missouri.—Marbut, C. F.
River-terraces, New England.—Davis, W. M.
River-valleys, sub-oceanic.—Hull, E.
——. *See* Valleys, Gorges, &c.
Rivers, Hampshire & London Basins.—White, H. J. O.
——, United States.—Lawson, A. C.; Newell, F. H.; Newsom, J. F.
——, Wales.—Lake, P.; Strahan, A.
Rivertree (N.S.W.).—Andrews, E. C.
Road-metal, Banff & Elgin.—Hinxman, L. W.
——, England (N.).—Anon., 67.
——, Fife.—Geikie, Sir A.
——, Maryland.—Reid, H. F.
——, Mendip 'granite.'—Anon., 58.
——, Missouri.—Marbut, C. F.
——, Switzerland.—Bodmer-Beder, A.
Roca (Argentina).—Burckhardt, C.
Rochechouart (Haute-Vienne). — Michel-Lévy, A., &c.
Rock-absorption.—Dittrich, M.
—— classification.—Dœlter, C.
—— disintegration, Egypt.—Lucas, A.
—— metamorphism. — Macmahon, C. A.
—— -texture, scale for.—Jevons, H. S.
——. *See also* Metamorphic, &c.
Rockall (Atlantic) & Rockallite.—Anon., 45; Cole, G. A. J.; Green, W. S.
Rockland Co. (N.Y.).—Kuemmel, H. B.
Rocks, mineral analysis of.—Sollas, W. J.
——, plasticity of. — Adams, F. D. Graber, H. V.; Weinschenk E.
Rocky Mts. (N. Am.).—Bonney, T. G.; Darton, N. H.; Dawson, G. M.; Fairchild, H. Le R.; Lakes, A.; Salisbury, R. D.; Shaler, N. S.; Woodward, H.
Rocourt (Liége).—Fourmarier, P.; Van den Broeck, E.
'Roddam,' dust from the.—Bonney, T. G.; Newlands, B. E. R.
——. *See also* Dust, &c.
Rodents, Quaternary.—Newton, E. T.
——, Tertiary.—Schlosser, M.
——. *See also* Mammalia.
Rœmer, F. von. *See* Simonds, F. W.
Rœmeria.—Počta, P.
Rögle (Denmark).—Œstrup, E.
Röhrbach Valley (Bavaria). — Knebel, W. von.
Rome (Italy).—Meli, R.; Stefani, C. de; Verri, A.; Viola, C.; Zambonini, F.
Romsdal (Norway).—Helland, A.
Ronchamp (Haute-Saône).—Mieg, M.
Rondout (N.Y.).—Ries, H.
Ronzotherium.—Schlosser, M.
Rosa, Mte. (Pennine Alps).—Dainelli, G.
Rosenbuschia.—Loriol, P. de, &c.
Rossi, M. S. de. *See* Van den Broeck, E.
Rossland (B.C.).—Prior, E. G.
Ross-shire.—Teall, J. J. H., &c.
Rotalia.—Friedberg, W.
Rotella.—Procházka, V. J.
Rothwell, R. P. *See* Bauerman, H.
Rotorua (N.Z.).—Rutley, F.
Rottweil (Würtemberg).—Haag, F.
Roudairia.—Quaas, A.
Rovasendia.—Airaghi, C.
Royan (Charente-Inf.).—Douvillé, H.
Royat (Auvergne).—Cullis, C. G., &c.
Rozel (Manche).—Bigot, A.
Rubble-drift.—Martin, E. A.
Rübeland (Harz).—Blasius, W.
Ruby.—Pfeil, K.
——, artificial.—Melczer, G.; Verneuil, A.
Ruby Hill (N.S.W.).—Pittman, E. F.
Rudistæ, Cretaceous.—Pâquier, V.; Redlich, K. A.
Rudler, F. W. *See* Anon., 21.
Rufford, P. J.; & *Ruffordia.* *See* Anon., 14.
Ruhr R. (Westphalia).—Middelschulte, A.
Rumania.—Butzureanu, V. C.; Mrazec, L., &c.; Nicolau, T.; Pallary, P.; Pâquier, V.; Simionescũ, J.
Rumiñahui (Ecuador).—Reiss, W., &c.
Rumpfite.—Freyn, R.
Runa.—Airaghi, C.
Rupel R. (Belgium).—Mourlon, M.
Rupelian.—Kœnen, A. von; Van den Broeck, E.
Russia.—Andrusov, N.; Bertrand, J.; Bogdanovich, K.; Karpinski, A.; Kaunhowen, F.; Krasnopolski, A.; Laskarev, V.; Lebedev, N.; Loranski, A.; Luchitzki, W.; Missuna, A.; Morozevich, I.; Nechaev, A.; Palibin, I. V.; Pavlov, A. V.; Pavlov, M.;

Ramsay, W.; Rehbinder, B. von; Rœsler, H.; Schmidt, F.; Vernadski, V. S., &c.
——. *See also* Crimea, Siberia, &c.
Russian Polar Expedition.—Toll, E. von.
Rutile.—Freyn, R.; Muegge, O.; Pfeil, K.; Thomas, H. H.
Rysedorph Hill (N.Y.).—Ruedemann, R.
Rzeszów (Galicia).—Friedberg, W.

Saarbrück (Germany).—Illner, —, &c.
Saas Valley (Valais).—Bonney, T. G.
Sabella.—Rovereto, G.
Sachsenburg (Thuringia).—Henkel, L.
Sacred Heart 'Geyser Spring' (Minn.).—Berkey, C. P.
Sadypus.—Ameghino, F.
Sagenocrinus.—Springer, F.
Sagitta.—Schubert, R. J.
Sahara (Africa).—Abel, O.; Flamand, G. B. M.; Gautier, E. F.; King, W. J. H.; Lahache, —.
ST. AUGUSTINE & HÆCKEL.—Frazer, P.
St. Chinian (Languedoc).—Depéret, C.
St. Croix R. (U.S.A.).—Hall, C. W.; Upham, W.
Ste. Croix (Vaud).—Rittener, T.
St. David's (Pembroke).—Jukes-Browne, A. J.
St. Dizier (Tasm.).—Waller, G. A.
St. Étienne (Loire).—Dobers, —, &c.; Friedel, G.
St. Gothard massif.—Bodmer-Beder, A.; Bœris, G.
St. Helen's (Tasm.).—Waller, G. A.
St. John's Group.—Jones, T. R.; Matthew, G. J.
St. Josse (Pas-de-Calais).—Gosselet, J.
St. Kitts, St. Lucia, & St. Martin (W.I.).—Spencer, J. W. W.
St. Lawrence-Appalachian Fault.—Ami, H. M.
St. Lawrence R. (N. Am.).—Smyth, C. H., Jun.
St. Louis (Senegambia).—Vasseur, G.
St. Mary's (Tasm.).—Twelvetrees, W. H.
St. Michel (Finland).—Frosterus, B.
St. Moritz (Grisons).—Rothpletz, A.
St. Nicolas (Flanders).—Van Ertborn, O.
St. Symphorien (Hainault).—Cornet, J.
St. Thomas I. (Gulf of Guinea).—Macedo, J. de.
St. Vallier (Alpes-Maritimes).—Guébhard, A.
St. Vincent (W.I.).—Anderson, T., &c.; Andre, E.; Anon., 38, 39, 40, 41, 45; Dickson, H. N.; Flett, J. S.; Hovey, E. O.; Lockyer, Sir N.; Lockyer, W. J. S.; Meunier, St.; Milne, J.; Newlands, B. E.; Powell, H.; Reusch, H., &c.; Spencer, J. W. W.; Teall, J. J. H.
Sta. Croce, Lake (Venetia).—Longhi, P.
Sakhalin I. (Siberia).—Anon., 45.
Sal-ammoniac, native.—Matteucci, R. V.
Salem (Madras).—Anon., 57.
Salicornaria.—Procházka, V. J.
Salix.—Hartz, N.; Hill, R. T.; Turner, H. W.
Salmacina.—Hall, T. S.
Salo (Lombardy).—Baldacci, L., &c.
Salonika (Turkey).—Cristomanos, —.
Salt, age of the earth &.—Ackroyd, A.
—— deposits, Austria.—Aigner, A.
—— ——, Bavaria.—Reis, O. M.
—— ——, Brunswick &c., potash.—Kloos, J.
—— ——, China.—Leclère, A.; Reid, A.
—— ——, Crimea, &c.—Vernadski, V. S., &c.
—— ——, I. of Man.—Dawkins, W. B.
——, ——, occurrence of.—Ratoin, E.
—— ——, Peru.—Loredo, J. A.
—— ——, Prussia.—Kubierski, K.; Van't Hoff, J. H., &c.; Westphal, J.
—— ——, Siberia.—Gagel, C.
—— ——, United States.—Parker, E. W.
—— lakes, Astrakhan.—Rehbinder, B. von.
—— ——, Transylvania.—Kalecsinski, A. von.
——, oceanic distribution.—Schott, G.
——, soils & marine.—Stainier, X.
Salt Lake, Gt. (Utah).—Talmage, J. E.
Salt Range (Punjab).—Clarke, R. W.; Seeley, H. G.
Salten Fjord (Norway).—Holmquist, P. J.
SALTER Collection, WOODWARDIAN Museum.—Reed, F. R. C.
Saltford (Somerset).—Laurence, W. K.
Saltpetre, Chile.—Darapski, L.
Salzach R. (Salzburg).—Penck, A., &c.
Salzburg (Austria).—Aigner, A.; Crammer, H.; Penck, A., &c.; Vacek, M.
Salzschlirf (Nassau).—Eck, H.
Samara (Russia).—Nechaev, A.
Samarapsis.—Kidston, R.
Samoa (Pacific).—Mœhle, F.
Samsö I. (Denmark).—Madsen, V.
San Bartolomeo (Sardinia).—Lovisato, D.
San Juan (Colo.).—Hartman, F.
San Luis Park (Colo.).—Lakes, A.
Sand-crystals.—Barbour, E. H.
——, deposition of.—Feret, R.; Fiévez, C. E.
—— -dunes. *See* Dunes.
—— -erosion.—Brunhes, J.; Julien, G. I.
—— ——. *See also* Windworn stones, &c.
Sandby (Scania).—Moberg, J. C.
Sandsend (Yorks).—Stather, J. W.
Sandstone-pillar in basaltic tuff.—Eck, H.
Sandstones, cementing-substance of.—Mackie, W.
——, I. of Man.—Dawkins, W. B.
——, Madagascar.—Lacroix, A.
——, Saxony & Silesia.—Elsden, J. V.
——, Scotland.—Mackie, W.

Sandstones, structure of Russian Tertiary.—Luchitzki, W.
Sandwich Is. (Pacific). *See* Hawaii Is.
Sangre-de-Cristo Range (Colo.). — Lee, W. T.
Sanguinolites.—Weller, S.
Santa Fé (New Mexico).—Salisbury, R. D.
Santa Lucia (Leon).—Œhlert, D. P.
Saône-et-Loire (France). — Dobers, —, &c.
Sapotacites.—Engelhardt, H.
Sapphire.—Pfeil, K.
—— deposits, Montana.—Pratt, J. H.
Saratoga Co. (N.Y.).—Kemp, J. F., &c.; Prosser, C. S.
Sardinia.—Achiardi, G. d'; Arcangeli, G.; Bosco, C.; Danneberg, A.; Duenkel, —; Lovisato, D.; Major, C. I. F.; Rimatori, C.; Riva, C.; Tornquist, A.; Traverso, S.
Sardinioides.—Woodward, A. S.
Sarepta (Astrakhan).—Nehring, A.
Sargus.—Stefano, G. de.
Sarmatian, Russia (S.).—Andrusov, N.; Simionescŭ, J.
Saron (Cape Colony).—Schwarz, E. H. L.
Sarrabus (Sardinia).—Achiardi, G. d'; Traverso, S.
Sarsella.—Lambert, J.
Sarsens, Belgian. — Dormal, V.; Van den Broeck, E.
Saskatchewan (Canada).—Bell, R., &c.
Sassafras.—Engelhardt, H.
Satlej Valley (Himalayas).—Macmahon, C. A.
Sauerland. *See* Westphalia.
Saurichthys.—Strahan, A., &c.
Saussurite.—Bodmer-Beder, A.
Sauvagesia.—Choffat, P.
Savoy (France).—Coolidge, W. A. B.; Haug, E.; Kilian, W., &c.; Michel-Lévy, A., &c.
Saxifraga.—Hartz, N.
Saxony.—Beck, R.; Bergt, W.; Brœgger, W. C., &c.; Credner, H.; Dalmer, K.; Elsden, J. V., &c.; Mammen, F.; Petrascheck, W.; Reinisch, R.; Rœsler, H.; Sachs, A.
SAY's Maryland Tertiary types.—Newton, R. B.
Scala.—Cossmann, M.
Scalaria.—Brœgger, W. C., &c.; Dainelli, G.; Hunt, A. R.; Ortmann, A. E.; Quaas, A.; Ravn, J. P. J.; Schlosser, M.; Trentanove, G.; Wanner, J.
Scalarituba.—Weller, S.
Scalpellum.—Ortmann, A. E.; Remeš, M.; Wanner, J.
Scamander R. (Tasm.).—Waller, G. A.
Scania (Gotland). — Grœnwall, K. A.; Hennig, A.; Holst, N. O.; Moberg, J. C.; Rœsler, H.
Scandinavia. *See* Sweden, &c.
Scandinavian plant-distribution.—Sernander, R.
Scaphella.—Wanner, J.
Scapherpeton.—Lambe, L. M.
Scaphites.—Quaas, A.; Ravn, J. P. J.; Sturm, F.
—— -zone, Brunswick.—Wollemann, A.
Scapolite-gneiss, Ceylon. — Coomáraswámy, A. K.
Scenery, geology &. — Anon., 37, 55; Avebury, Lord; Coomáraswámy, A. K.; Frosterus, B.; Geikie, Sir A.; Geikie, J.; Mackinder, H. J.
Scenophyllum.—Simpson, G. B.
Scesaplana, Mt. (Vorarlberg).—Lorenz, T.
Scheelite.—Schmidt, C.
Schega (Styria).—Engelhardt, H.
Schemnitz (Hungary).—Anon., 23.
Schertalite.—Macivor, R. W. E.
Schiefergebirge (Thuringia).—Zimmermann, E.
Schiket (Erythræa).—Achiardi, G. d'.
Schists, Anglesey.—Callaway, C.; Greenly, E.
——, Antarctic.—Macleod, W. A., &c.
——, bituminous.—Renault, B.
——, California. — Hershey, O. H.; Nutter, E. H., &c.
——, cleavage of.—Spring, W.
——, Cogne.—Bonney, T. G.
——, Cornwall.—Lowe, H. J.
——, Devon (S.).—Hunt, A. R.
——, glaucophane-.—White, H. P.
——, Labrador.—Daly, R. A.
——, mapping of crystalline.—Hobbs, W. H.
——, Minnesota.—Hall, C. W.
——, Mysore.—Smeeth, W. F.
——, quartz-.—Parkinson, J.
——, Rozel.—Bigot, A.
——, Scotland.—Hinxman, L. W., &c.; Horne, J.; Macnair, P.
——, Washington (U.S.A.). — Landes, H.
——, *See also* Mica-, Moine-, &c.
Schizaster.—Airaghi, C.; Checchia, G.; Lambert, J.; Loriol, P. de; Ortmann, A. E.
Schizodus.—Weller, S.
Schizograptus.—Elles, G. L., &c.
Schizoneura.—Krasser, F.; Zeiller, R.
Schizophoria.—Dun, W. S.; Martelli, A.; Weller, S.
Schizoporella.—Maplestone, C. M.
Schizorhabdus.—Wanner, J.
Schizotreta.—Ruedemann, R.
Schladminger Tauern (Styria).—Ippen, J. A.
Schlan coal-basin (Bohemia). — Weithofer, K. A.
Schleswig-Holstein.—Gagel, C.; Linstow, O. von; Madsen, V.; Oppenheim, P.; Struck, R.
Schlocke R. (Courland).—Doss, B.
Schlönbachia.—Krause, P. G.; Petrascheck, W.
Schluckenau (Bohemia).—John, C. von.
Schmidtella.—Jones, T. R.; Matthew, G. F.; Ruedemann, R.

Schmiedefeld (Thuringia).—Schlegel, K.
Schneebergite.—Kœchlin, R.
Schœnophyllum.—Simpson, G. B.
Schouten I.(Tasm.).—Twelvetrees, W.H.
Schwanebeck (Magdeburg).—Wuest, E.
Schwarzburg (Thuringia).—Luedecke, O.
Schwarze Krux (Thuringia).—Schlegel, K.
Schwarzen Berge (Bavaria).—Sœllner, J.
Schwarzwald (Baden, &c.).—Eck, H.; Rosenbusch, H.; Sauer, A.
Scissurella. — Brœgger, W. C., &c.; Cossmann, M.
Sciuroides.—Schlosser, M.
Sclerocrinus.—Remeš, M.
Sclerosaurus.—Huene, F. von.
Scoliopleura.—Pantocsek, J.
Scotland.—Barrow, G.; Dron, R. W.; Garrett, F. C., &c.; Geikie, Sir A.; Geikie, J.; Goodchild, J. G.; Harker, A.; Hinxman, L. W.; Horne, J.; Kirkby, R.; Niven, W. N.; Rœsler, H.; Smith, W. G.
——. *See also* Lothians, &c.
——, palæontology during the last twenty years.—Peach, B. N.
Scrobicularia & *Scutellina.*—Brœgger, W. C., &c.
Scutella.—Airaghi, C.; Loriol, P. de; Ortmann, A. E.
Scutum.—Cossmann, M.
Sea-cow, Aruba I. fossil.—Van Oort, E. D.
Séderon (Drôme).—Kilian, W.
Sedimentary deposits, original form of. —Blake, J. F.; Teall, J. J. H.
—— rocks, classification of.—Cross, W.; Williams, H. S.
Seelow (Brandenburg).—Tietze, O.
Seelya.—Schuchert, C.
Sehnde (Hanover).—Hoyer, —.
Seine-et-Marne (France).—Michel-Lévy, A., &c.; Rutot, A.
Seine-et-Oise (France). — Rutot, A.; Schlœsing, T.
Seine Valley (France).—Thomas, H.
Seismograph, barometer &. — Denison, F. N.
Seismological Congress.—Kœvesligethi, R. von; Rudolph, E., &c.
Seismology.—Agamennone, G.; Chree, C.; Contarini, M.; Grablovitz, G.; Guzzanti, C.; Milne, J.; Ōmori, F.
——. *See also* Earthquakes.
Selenoconus.—Ameghino, F.
Seligmannite.—Baumhauer, H.; Gaubert, P.
Selmeczbánya (Hungary).—Bœckh, H.
Seminula.—Beede, J. W.
Semionotus.—Frech, F.; Hobbs, W. H.; Schellwien, E.
Semna Cataract (Nile).—Ball, J.
Semnopithecus.—Seguenza, L.
SENCKENBERG Natural History Society. —Kinkelin, F., &c.
Senegambia (W. Africa).—Bourdariat, A. J.; Hamy, T. E.; Meunier, St.; Pelatan, L.; Vasseur, G.
Senonian, Brunswick.—Wollemann, A.
——, France.—Thiot, R.; Valette, A.
——, Lombardy.—Alessandri, G. de.
——, Portugal.—Choffat, P.
Sens (Yonne).—Valette, A.
Senze do Itombe (Angola).—Voit, F. W.
Septarian boulders, Otago.—Hamilton, A.
—— clay, Schleswig-Holstein.—Oppenheim, P.
Septifer.—Quaas, A.
Sequoia.—Hill, R. T.
Seraing (Liége).—Questienne, P.
Seran (Molucca Is.).—Martin, K.
Serchio Valley (Tuscany).—Ugolini, R.
Serendibite.—Gaubert, P.
Sericitic gneiss, &c., Lombardy.—Baltzer, A.
Serpentine, Bavaria.—Sœllner, J.
——, Cornwall.—Hill, J. B.; Lowe, H. J.
——, Piedmont.—Novarese, V.
——, Switzerland.—Bodmer-Beder, A.
——, Tuscany.—Ugolini, R.
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Serpula.—Ortmann, A. E.; Quaas, A.; Remeš, M.; Wanner, J.
Serpulidæ, Tertiary.—Hall, T. S.
Servia.—Radovanović, S.
Sestola (Tuscany).—Chistoni, C.
Setebos.—Roth, S.
Setouchi Sea (Japan).—Yamasaki, N.
Severn R.—Cornish, V.; Strahan, A.
Seville (Victoria).—Cresswell, A. W.
Seward Penin. (Alaska).—Brooks, A. H., &c.
Seymour (Tasm.).—Twelvetrees, W. H.
Seymour I. (Antarctic).—Nordenskjœld, O., &c.
Shales, Kansas.—Crane, W. R.
——, New York.—Ries, H.
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Shanghai (China).—Jack, R. L.
Shannon R. (Tasm.).—Twelvetrees, W. H.
Shap (Westmoreland).—Marr, J. E.
Sharks, Devonian.—Dean, B.
Shastasaurus.—Merriam, J. C.
Shell - torsion, lamellibranchiate. — Nœtling, F.
Shellag (I. of Man).—Wright, J.
Shemakha (Transcaucasia).—Lysakovski, C.
Shepaug R. (Conn.).—Hobbs, W. H.
Sheppey, I. of (Kent).—Crick, G. C.
Sherkin I. (Co. Cork).—Reade, T. M.
Shimoga (Mysore).—Slater, H. K.
Shingle, coast-.—Hunt, A. R.; Wheeler, W. H.
SHIPMAN, J. *See* Carr, J. W.; Stapleton, A.
Shonkinite.—Romberg, J.
Shore-lines. *See* Raised beaches.
—— -terrace waves.—Fenneman, N. M.
Shotover (Oxon).—Blake, J. F.
Shropshire.—Jukes-Browne, A. J.
Shumardia.—Moberg, J. C.; Pompeckj, J. F.

Siam, Lower (Malay Provinces).—Skeat, W. W.
Siberia (Asia).—Anon., 45, 48; Frech, F.; Gagel, C.; Gerasem, A. P.; Ijitzk, N., &c.; Ivanov, M. M.; Kayser, E.; Lebedev, N.; Meister, A.; Peetz, H. von; Veillet-Dufrèche, —; Washington, H. S.; Yachevski, L.; Yavorovski, P. K.; Zeiller, R.
Siberian Arctic Sea.—Toll, E. von.
Sicily.—Gemmellaro, G. G.; Pampaloni, L.; Seguenza, L.; Silvestri, A.; Viola, C.
Siderite.—Johnson, A.
Siebengebirge (Rh.-Prussia).—Henrich, F.
SIEGFRIED Atlas (Basel).—Struebin, E.
Siena (Tuscany).—Achiardi, G. d'; Fucini, A.
'Sierran.'—Hershey, O. H.
Siflitz (Carinthia).—Canaval, R.
Sigapatella.—Ortmann, A. E.
Sigaretus.—Cossmann, M.
Sigillaria.—Kidston, R.; Zeiller, R.
Sigillariophyllum.—Arcangeli, G.
Sigillariostrobus.—Kidston, R.
Sigsbeia.—Hall, T. S,
Silchester (Hants).—Reid, C.
Silesia.—Dathe, E.; Elsden, J. V.; Frech, F.; Illner, —, &c.; Michael, R.; Milch, L., &c.; Rehbinder, B. von; Sachs, A.; Volz, W.; Wuest, E.
Silesites.—Sarasin, C., &c.
Silica, analysis of.—Hillebrand, W. F.
——, micro-organisms preserved by.—Renault, B.
Silicates, melting-points of.—Vogt, J. H. L.
——. *See also* Minerals.
Siliceous-limestone rocks, Baden.—Rosenbusch, H.
—— minerals.—Pfeil, K.
—— sinter, Builth.—Rutley, F.
Silicified wood, Florence.—Pampaloni, L.
—— ——, Rocourt.—Van den Broeck, E.
Siliquaria.—Ravn, J. P. J.; Wanner, J.
Sillimanite, Austria (U.).—Handmann, R.
—— -gneiss, Dutch Guiana.—Bergt, W.
Silurian, America (N.).—Weller, S.
——, —— (—). *See also* Canada, &c.
——, Baffin Land.—Schuchert, C.
——, Belgium.—Malaise, C.
——, Bohemia.—Počta, P.; Želizko, J. V.
——, Britanny.—Barrois, C.; Kerforne, F.
——, Canada.—Grabau, A. W.; Grant, C. C.; Wilson, W. G.
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——, Cincinnati.—Nickles, J. M.
——, Clogher Head, &c.—Gardiner, C. I., &c.
——, Colorado.—Vaillant, L.
——, Harz.—Lotz, H.; Potonié, H.
——, Hindu Khoosh.—Macmahon, C. A., &c.
——, Indiana.—Cumings, E. R.; Elrod, M. N.; Kindle, E. M.
Silurian, Ireland.—Clark, R.; Kilroe, J. R., &c.
——, New Jersey.—Kuemmel, H. B., &c.
——, New South Wales.—Cumings, E. R.; Dwight, W. B.; Hall, T. S.; Loomis, F. B.; Ruedemann, R.
—— phosphates, Germany.—Kruft, L.
——, SALTER's collection.—Reed, F. R. C.
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——, Spain.—Barrois, C.; Dereims, A.
——, Sweden.—Grœnwall, K. A.; Holm, G., &c.; Moberg, J. C.; Munthe, H.; Strandmark, J. E.
——, Tennessee, &c.—Fœrste, A. F.
——, Yorkshire.—Hughes, T. McK.
Siluro-Devonian boundary, N. American.—Williams, H. S.
Silurus.—Leriche, M.
Silver, analcite & chabazite.—Steiger, G.
——, Australia (S.).—O'Loughlin, L., &c.
——, Caucasus.—Bogdanovich, K.
——, Colombia.—Russell, A. J.
——, Colorado.—Ransome, F. L.; Yunge, W.
——, France.—Caraven-Cachin, A.
—— -lead ore, Monte Somma.—Matteucci, R. V.
——, Mexico.—Halse, E.; Salazar, L.
——, Nevada.—Yunge, W.
——, New South Wales.—Andrews, E. C.; Carne, J. E.; Maclachlan, D. C.
——, New Zealand.—Macgowan, J.
——, Norway.—Vogt, J. H. L.
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——, Styria.—Setz, W.
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—— Peak (Nev.).—Turner, H. W.
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Simplon massif (Pennine Alps).—Lugeon, M.; Taramelli, T.
—— Tunnel.—Gœgg, G.; Oliver, T.
Sinaloa (Mexico).—Ward, H. A.
Sincholagua (Ecuador).—Reiss, W.
Sind (India).—Griesbach, C. L.
Sinopa.—Matthew, W. D.; Wortman, J. L.
Siorarsuit (Greenland).—Bœggild, O. B.
Sipho, Siphonodentalium, & Siphonoentalis.—Brœgger, W. C., &c.
Siphonalia & Solariella.—Cossmann, M.; Ortmann, A. E.
Siphonotreta.—Ruedemann, R.
Sirenia, Quaternary.—Van Oort, E. D.
Sismondia.—Airaghi, C.
Sistiana (Trieste).—Moser, L. K.; Oppenheim, P.
Skalička (Moravia).—Remeš, M.
Skara (Gotland).—Dusén, P.; Munthe, H.

Skenea.—Brœgger, W. C., &c.
Skibbereen (Co. Cork).—Reade, T. M.
Skippack Creek (Penn.).—Lyman, B. S.
Skipton (Victoria).—Macivor, R. W. E.
Skolai Mts. (Alaska).—Rohn, O.
Skull, Lansing human.—Upham, W.; Winchell, N. H.
Skye, I. of (Scotland). — Harker, A.; Horne, J.; Teall, J. J. H., &c.; Woodward, H. B.
Slags.—Milch, L.; Vogt, J. H. L.
Slates, Labrador.—Daly, R. A.
——, Lake-District green. — Reade, T. M., &c.
——, New York State.—Nevius, J. N.
——, Penrhyn.—Elsden, J. V., &c.
Slaty cleavage.—Reade, T. M., &c.; Spring, W.
Slavonia. *See* Balkan & Croatia.
Sligo (Ireland).—Præger, R. Ll., &c.; Scharff, R. F.
Sloley Quarry (Devon). — Coomáraswámy, E. M.
Smerwick Bay (Kerry).—Gardiner, C. I., &c.
Smith, W., 1769–1839, & Smithe, F. *See* Woodward, H. B.
Smittia.—Maplestone, C. M.
Smyrna (Asia Minor).—Achiardi, G. d'.
Snow-ice, glaciers &.—Jegerlehner, J.
—— -mushrooms.—Cornish, V.
Snowdon (N. Wales).—Marr, J. E.
Soapstone, United States.—Pratt, J. H.
Soar R. (Leicester).—Rœchling, H. A., &c.
Soda-deposits, China.—Leclère, A.
Sodalite-syenite, Rocky Mts.—Bonney, T. G.
Sodbury (Gloucester).—Reynolds, S. H., &c.
Soignies (Hainault).—Rutot, A.
Soils, Belgium.—Buttgenbach, H.; Fourmarier, P., &c.; Rabozée, H.; Stainier, X.
——, Boulonnais.—Schlœsing, T.
——, British.—Macconnell, P.
——, Colorado.—Lakes, A.
——, Devon.—Ussher, W. A. E.
——, dolomite in.—Phipson, T. L.
——, Egypt.—Lucas, A.
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——, Indiana.—Dorner, H. B.
——, Jersey I.—Naylor, W.
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——, Kursk Gov.—Derjavin, A.
——, lime & phosphates in.—Sutherst, W. F.
——, Lombardy.—Tacconi, E.
Soils, Missouri.—Marbut, C. F.
——, Norfolk.—Woodward, H. B.
——, origin of.—Bommer, C.
——, plants &.—Hall, A. D., &c.; Hardy, M.
——, sampling of.—Leather, J. W.
——, unmodified.—Macgee, W. J.
——, Venetia.—Stella, A.
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Solar energy, volcanic eruptions &.—Lockyer, Sir N.
Solarium.—Quaas, A.; Ravn, J. P. J.; Wanner, J.
Solecurtus.—Brœgger, W. C., &c.; Stanton, T. W.
Solen.—Brœgger, W. C., &c.; Nœtling, F.; Simionescŭ, J.
Solenastræa.—Procházka, V. J.
Solenhofen (Bavaria).—Maas, O.
Solent (S. England).—Reid, C.
Soletellina.—Loriol, P. de, &c.
Solothurn (Switzerland).—Steinmann, G.
Somaliland (N.E. Africa).—Neuman, F.
Somerset.—Anon., 58; Balch, H. E.; Callaway, C.; Cook, E H.; David, W.; Elsden, J. V.; Fry, Sir E.; Kennard, A. S., &c.; Jukes-Browne, A. J.; Lawrence, W. K.; Mill, H. R.; Morgan, C. L.; Morgans, T.; Richardson, L.; Steart, F. A.; Thomas, H. H.; Wilson, E., &c.
Somma, Mte (Campania).—Matteucci, R. V.
Somme (Picardy).—Gosselet, J.
Sondalo (Lombardy).—Brugnatelli, L.
Sonnenburg (Brandenburg).—Tietze, O.
Sonnwendjoch (Tyrol).—Ampferer, O.; Wæhner, F.
Sophora.—Engelhardt, H.
Sorell, Lake (Tasm.).—Twelvetrees, W. H.
Sorrel, Mount (Leicester).—Rœchling, H. A.; Watts, W. W.
Sorrento Penin. (Victoria).—Gregory, J. W.
Sotenopleura.—Grœnwall, K. A.
Soudan (N. Africa). *See* Sudan.
Soufrière, La (St. Vincent). *See* St. Vincent.
Souk Ahrras (Algeria).—Blayac, J.
Southampton (Hants).—Reid, C.; Sherborn, C. D.
South Britain (Conn.).—Hobbs, W. H.
S. E. R. Cutting, Elmstead.—Holmes, T. V., &c.
South Park (Colo.).—Lakes, A.
South-Wales Direct Line.—Reynolds, S. H., &c.
Spa (Belgium).—Van den Broeck, E.
Spain.—Barrois, C.; Calderon, S.; Coello, C.; Cortázar, D. de; Dereims, A.; Klockmann, F.; Lambert, J.; Larraz, G.; Lozano, R. S.; Macpherson, J.; Mallada, L.; Nicklès, R.; Puig, Y.; Rœsler, H.; Tenne, C. F. A., &c.
——. *See also* Barcelona, &c.
Spalato (Dalmatia).—Kerner, F. von; Martelli, A.

Spandau (Brandenburg).—Wahnschaffe, F.
Spanish Peaks (Colo.).—Lakes, A.
Sparnacian.—Boule, M.
Spatangus.—Airaghi, C.; Lambert, J.
Spathella.—Weller, S.
Spathyena.—Turner, H. W.
Species, origin of.—Van den Broeck, E.
Speeton (Yorks).—Sheppard, T.
Sperrylite.—Wells, H. L., &c.
Sphærites.—Arcangeli, G.
Sphærocoryphe.—Ruedemann, R.
Sphærodoma.—Weller, S.
Sphæronites & *Sphærophthalmus.* — Holm, G., &c.
Sphærozoum.—Martin, K.
Sphærulites.—Choffat, P.
Sphene.—Neuwirth, V.
Sphenodiscus & *Sphenolepidium.*—Hill, R. T.
Sphenodus.—Remeš, M.
Sphenophyllum.— Arcangeli, G.; Kidston, R.; Potonié, H.; Zeiller, R.
Sphenopteridium.—Nathorst, A. G.
Sphenopteris.—Arber, E. A. N.; Arcangeli, G.; Nathorst, A. G.
Sphenotus.—Maurer, F.; Weller, S.
'Sphérolithes'.—Renault, B.
Sphingites.—Mojsisovics, E. von.
Spiders, Carboniferous.—Thevenin, A.
Spirialis.—Brœgger, W. C., &c.
Spirifer.—Clarke, J. M.; Drevermann, F.; Dun, W. S.; Etheridge, R., jun.; Macmahon, C. A., &c.; Martelli, A.; Œhlert, D. P.; Rowley, R. R.; Weller, S.
Spiriferina.—Dun, W. S.; Mariani, E.; Roth, S., &c.; Weller, S.
Spirillina.—Chapman, F.
Spiroloculina.—Chapman, F.; Grzybowski, J.; Liebus, A.
Spirophyton.—Weller, S.
Spiroplecta.—Grzybowski, J.; Wright, J.
Spirorbis.—Clarke, J. M.; Œhlert, D. P.
Spitsbergen (Arctic).—Fries, T. M.
Spondylus.—Dainelli, G.; Loriol, P. de, &c.; Ravn, J. P. J.; Quaas, A.; Reis, O. M.
Sponges, Cretaceous.—Wanner, J.
——, Devonian.—Clarke, J. M.
——, Quaternary.—Ries, H.
——, Silurian.—Peach, B. N.; Reed, F. R. C.
——, Tertiary.—Rovereto, G.
Spongophyllum.—Počta, P.
Spongosphæra.—Kruft, L.
Spontin (Namur).—Soreil, G.
Sporadoceras.—Drevermann, F.; Frech, F.
Spores, fossil pollen-.—Renault, B.
Springfield (Mass.).—Davis, W. M.
Springs, Crupet intermittent.—Rabozée, H.; Rahir, E.
Spyrostylus.—Gortani, M.
Squalodon.—Gemmellaro, G. G.
Squatina.—Priem, F.
Squaw Island, Canandaigua Lake.—Clarke, J. M.
Stack Series, I. of Man.—Dawkins, W. B.
Staffordshire.—Barrow, G., &c.; Gibson, W., &c.; Hind, W.; Stobbs, J. T.; Thompson, B.; Woodward, A. S.
Staganolepis.—Huene, F. von.
Stalden (Valais).—Martel, E. A.
Stalioia.—Cossmann, M.
Stambruges (Hainault).—Cornet, J.
Stanwell (Queensl.).—Shirley, J.
Stassfurt (Prussia).—Van't Hoff, J. H., &c.; Westphal, J.
Staten I. (N.Y.).—Hollick, A.
Stauhochwasser (Courland).—Doss, B.
Staurolite.—Thomas, H. H.
Stauroneis.—Pantocsek, J.; Ries, H.
Stavelot (Liége).—Renier, A.
Stefanite.—Achiardi, G. d'.
Stegoceras.—Lambe, L. M.
Steneosaurus.—Simionescū, J.
Stenoplesictis.—Schlosser, M.
Stenopora.—Condra, C. B.
Stenopteris.—Zeiller, R.
Stephanocrinus.—Weller, S.
Stephanodiscus.—Ries, H.
Stephanospermum.—Renault, B.
Stephen, Mt. (B. C.).—Woodward, H.
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Stereocephalus.—Lambe, L. M.
Stereolasma.—Simpson, G. B.
Stereosternum.—Huene, F. von.
Stibiconite.—Achiardi, G. d'; Angelis d'Ossat, G. de.
Stigmaria.—Kidston, R.; Potonié, H.
Stigmarian rootlets.—Weiss, F. E.
Stigmariopsis.—Kidston, R.
Stilbite.—Fromme, J.
Stofferite.—Gaubert, P.
Stoke-upon-Trent (Staffs.).—Barrow, G., &c.; Gibson, W. &c.
Stomatopora.—Ruedemann, R.
Stomatoporidæ, Cambrian.—Guerich, G.
Stone-implements. *See* Implements.
Stone Mt. (Ga.).—Watson, T. L.
Stone-fall Commission. *See* Coal-fall.
Stone-rivers, Falkland Is.—Bonney, T. G.
Stonehenge (Wilts).—Harrison, W. J.
Stormberg Beds.—Schellwien, E.
Storthingocrinus.—Œhlert, D. P.
Stramberg (Moravia).—Remeš, M.
Stranitzen (Styria).—Engelhardt, H.
Straparollus.—Weller, S.
Strasburg (Alsace).—Milne, J.
Strathspey (Scotland).—Hinxman, L. W., &c.
Stratigraphical classification.—Bain, H. F.; Cross, W.; Mourlon, M., &c.
Strepsidura.—Quaas, A.
Streptelasma.—Lebedev, N.; Počta, P.
Stretto (Dalmatia).—Schubert, R. J.
Striæ, Sandsend glacial.—Stather, J. W.
Striatopora.—Lebedev, N.
Stromatoporidæ, Cretaceous.—Tornquist, A.
Strombodes.—Počta, P.
Strombus.—Deninger, K.
Stromstad (Gotland).—Geer, G. de.

Strophalosia.—Dun, W. S.
Stropheodonta.—Drevermann, F.; Œhlert, D. P.
Strophostylus.—Clarke, J. M.; Weller, S.
Struthiolaria.—Ortmann, A. E.
Struvite.—Macivor, R. W. E.
Stuorella.—Schlosser, M.
Sturia.—Mojsisovics, E. von.
Stylemys.—Seguenza, G.
Stylocalamites.—Potonié, H.
Stylolites, Triassic.—Bittner, A.
Stylophorus.—Roth, S.
Styrax.—Engelhardt, H.
Styria (Austria).—Aigner, A.; Dreger, J.; Engelhardt, H.; Freyn, R.; Hœrnes, R.; Ippen, J. A; Setz, W.; Sigmund, A.
Sub-oceanic river-valleys.—Hull, E.
Subemarginula.—Dainelli, G.
Subiaco (Prov. of Rome).—Viola, C.
Submerged-forest plants. *See* Plants.
Subtetrapedia.—Renault, B.
Succinea.—Pallary, P.
Suceava (Rumania).—Butzureanu, C.
Sudan (N. Africa).—Bourdariat, A. J.; Launay, L. de; Neumann, F.
Suess, E. *See* Schipper, J., &c.
Suessionia & Surcula.—Cossmann, M.
Suffolk.—Harmer, F. W.; Hill, E.; Layard, N. F.; Monckton, H. W., &c.; Whitaker, W.; Woodward, H. B.
Sularp R. (Scania).—Moberg, J. C.
Sulphidic ores, Var.—Emmons, S. F.
Sulphur.—Achiardi, G. d'; Antony, U.; Dieseldorff, A.; Jesup, M. K.; Meunier, St.; Parker, E. W.
Sumalatta (Celebes).—Molengraaff, G. A. F.
Sumatra (D. E. I.). — Liebenam, W.; Schmidt, C.; Tornquist, A.
Sunbury Shale, Ohio.—Prosser, C. S.
Sünik (Elizabetpol).—Ermisch, —.
Superior, Lake (N. Am.).—Collie, G. L.; Spurr, J. E.; Van Hise, C. R.; Willmott, A. B.
Surface-cracks, polygonal.—Fries, T. M.
Surirella.—Pantocsek, J.
Surrey.—Coomáraswámy, A. K.; Hall, A. D., &c.; Jukes-Browne, A. J.; Monckton, H. W.; Robarts, N. F.; Stebbing, W. P. D.; Whitaker, W.
Surveys, geological. *See* Geological.
Sus.—Schlosser, M.; Seguenza, L.; Ugolini, R.
Susa, Val (Piedmont).—Bœris, G.; Brugnatelli, L.; Piolti, G.
Sussex.—Anon., 49; Jukes-Browne, A. J.; Macpherson, W.
Sutherland (Scotland).—Blake, J. F.; Bonney, T. G.; Maclaren, J. M.
Sutlej Valley (India). *See* Satlej.
'Sutphen' process.—Nevius, J. N.
Svealand (Sweden). — Blomberg, A.; Dahl, C. G; Petersen, W.; Svedmark, E.
Sveltella.—Cossmann, M.
Svenningdal (Norway).—Vogt, J. H. L.
Swabia.—Lœrcher, O.; Schlosser, M.
wakop R. (S. Africa).—Klein, C.
Swallow-holes, Salzburg.—Crammer, H.
——. *See also* Caverns.
Swarth Fell (Yorks).—Rhodes, J.
Sweden.—Bonsdorff, A.; Elsden, J. V., &c.; Geer, G. de; Kjellen, R.; Moberg, J. C.; Ramsay, W.; Tœrnebohm, A. E., &c.
——. *See also* Geological Survey, Gotland, &c.
Swellendam (Cape Colony).—Rogers, A. W., &c.
Switzerland.—Penck, A., &c.; Preller, C. S. Du R.; Zschokke, F.
——. *See also* Jura, &c.
Sydney (N.S.W.).—Card, G. W.
Syenite, Asia Minor.—Achiardi, G. d'.
——, Bavaria.—Œbbeke, K., &c.
——, Canada.—Buchan, J. S.; Coleman, A. P.; Le Roy, O. E.
——, Bohemia.—Hibsch, J. E.
——, Leicester.—Rœchling, H. A., &c.
——, Madagascar.—Lacroix, A.
——, Rocky Mts.—Bonney, T. G.
——, Russia.—Morozewich, I.
——, Tasmania.—Twelvetrees, W. H.
——, Tyrol.—Romberg, J.
Sykes, P. M. *See* Blanford, W. T.
Symphysurus.—Pompeckj, J. F.
Synaptophyllum.—Simpson, G. B.
Synchysite.—Gaubert, P.
Syndosmya.—Simionescŭ, J.
Synedra.—Pantocsek, J.; Ries, H.
Synnada (Asia Minor).—Anon., 68.
Syracuse (N.Y.). — Schneider, P. F.; Smyth, C. H., Jun.
Syria (Asia Minor).—Day, A. E., &c.; Schaffer, F.
Syringoceras.—Mojsisovics, E. von.
Syringopora.—Lebedev, N.
Syringothyria.—Dun, W. S.
Syringothyris.—Destinez, P.; Weller, S.
Syrnola.—Cossmann, M.
Sze-Chuen (China).—Leclère, A.
Szentpeterfalva (Transylvania). — Nopčsa, F., jun.
Szkerisora (Hungary).—Pálfy, M. von.
Szolcsva (Hungary).—Telegd, L. R. von.
Szölgyen (Hungary).—Horusitzky, H.

Table Mt. (Cape Colony), glacial conglomerate in sandstone.—Rogers, A. W.
Table-Mountain Sandstone.—Gibson, W.
Tachylyte, Tasmania.—Petterd, W. F.
Tænidium.—Lorenz, J. R. von.
Taganrog (S. Russia).—Morozevich, I.
Taillefer (Namur).—Bourgeat, —.
Takasima (Japan).—Anon., 35; Nardin, E. W.
Talatuoya (Ceylon). — Coomáraswámy, A. K.
Talc, United States.—Pratt, J. H.
Taliabe I. (D.E.I.).—Bœhm, G.
Taltal (Chile).—Darapski, L.
Taman (S. Russia).—Vernadski, V. S., &c.
Tamina R. (St. Gall).—Brunhes, J.
Tanganyika, Lake (Equat. Africa).—Langhans, P.
Tantalite.—Neuwirth, V.

Tapes.—Brœgger, W. C., &c.; Simionescŭ, J.; Stanton, T. W.; Sturm, F.; Trentanove, G.
Tapirulus.—Gaudry, A.; Schlosser, M.
Tapirus.—Schlosser, M.; Sinclair, W. J.
Taranis.—Brœgger, W. C., &c.
Tarbeck (Schleswig-Holstein).—Gagel, C.
Tarcoola (S. Austral.).—Brown, H. Y. L.
Tardree (Antrim).—Phillips, J. St. J.
Tarikere (Mysore).—Primrose, A.
Tarkwa or Tarquah (Gold Coast).—Cadell, H. M.; Sawyer, A. R.
Tarn (France).—Arsandaux, H.; Caraven-Cachin, A.
Tarn-et-Garonne (France). — Michel-Lévy, A., &c.; Peron, A.
Tasmania.—Craze, J.; Hogg, E. G.; Johnston, R. M.; Kitson, A. E.; Petterd, W. F.; Sauvage, H. E.; Stephens, T.; Twelvetrees, W. H.; Van Name, R. G.; Wallace, W. H., &c.; Waller, G. A.; Williams, L.
Tata coalfield (Hungary).—Litschauer, L.
Tate, R. *See* Basedow, H.; Blake, J. F.; Woodward, H. B.
Taubach (Thuringia).—Moller, H.
Taunus (Hesse).—Wittich, E., &c.
Taurida (S. Russia).—Morozevich, I.
Tavernola (Lombardy).—Salmojraghi, F.
Taxco (Mexico).—Salazar, L.
Taxoxylon.—Shirley, J.
Taxus.—Conwentz, H.
Tay, Loch (Perth).—Macnair, P.
Taylor's Falls (Minn.).—Upham, W.
Tectura & *Tellimya.*—Brœgger, W. C., &c.
Teesdale (Durham, &c.).—Dwerryhouse, A. R.
Teeth, *Equus.*—Gidley, J. W.
——, man, &c.—Gaudry, A.
Tehuelia.—Roth, S.
Teïa or Teya R. (Siberia).—Yachevski, L.
Teleoceras.—Schlosser, M.
Telerpeton.—Huene, F. von.
Teleutospora.—Renault, B.
Tellina.—Basedow, H.; Brœgger, W. C., &c.; Ortmann, A. E.; Quaas, A.; Stefani, C. de; Wanner, J.
Tellina-clay.—Milthers, V.; Œstrup, E.
Tellina Valley (Lombardy).—Brugnatelli, L.
Telluride, Australia (W.).—Moss, F.
——, crystalline form.—Finckh, L.
Tellurium-minerals.—Macivor, R. W.
Temnograptus.—Elles, G. L., &c.
Temojoh (Borneo).—Krause, P. G.
Temperature, underground.—Everett, J. D., &c.
Tennessee (U.S.A.). — Eckel, E. C.; Fœrste, A. F.; Hayes, C. W.; Parker, E. W.
Tennysonia, Terebella, & *Terebra.*—Ortmann, A. E.
Tentaculites.—Clarke, J. M.
Tenuiscala.—Cossmann, M.
Tephrite, Bohemia.—Hinterlechner, K.
Terchnophorus.—Ruedemann, R.
Terebralia.—Dainelli, G.
Terebratella.—Brœgger, W. C., &c. Ortmann, A. E.
Terebratula.—Cossmann, M.; Dainelli, G.; Drevermann, F.; Hill, R. T.; Wanner, J.
Terebratulina.—Brœgger, W. C., &c.; Hill, R. T.; Quaas, A.
Terebripora.—Neviani, A.; Rovereto, G.
Teredo.—Choffat, P.; Cossmann, M.; Procházka, V. J.; Quaas, A.; Stather, J. W.; Wanner, J.
Terek R. (S. Russia).—Sokolov, N.
Terminalia.—Engelhardt, H.
Terraces, Indiana.—Macbeth, W. A.; Marsters, V. F.
——, Neckar Valley.—Stoller, J.
——, New England river-.—Davis, W. M.
——, valley-.—Lamothe, — de.
——, waves & shore-.—Fenneman, N. M.
Tertiary, Africa (S.).—Stromer, E.
——, —— (W.).—Vasseur, G.
——, Alabama.—Casey, T. L.
——, Algeria.—Blayac, J.; Pervinquière, L.
——, America (N.) plains.—Hatcher, J. B.
——, Argentina.—Ameghino, F.
——, Arizona.—Blake, W. P.
——, Asia Minor.—Schaffer, F.; Toula, F.
——, Atlantis.—Scharff, R. F.
——, Australia.—Ashby, E., &c.; Basedow, H.; Deane, H.; Hall, T. S.; Kitson, A. E.; Mulder, J. F.; Thiele, E. O., &c.
——, Austria-Hungary.—Bœttger, O.; Dainelli, G.; Engelhardt, H.; Hœrnes, R.; Lœrenthay, E.; Procházka, V. J.; Redlich, K. A.; Rhezak, A.; Schafarzik, F.; Schubert, R. J.; Telegd, L. R. von.
——, Bavaria.—Deninger, K.; Liebus, A.; Weithofer, K. A.
——, Belgium.—Bommer, C.; Dormal, V.; Harmer, F. W.; Mourlon, M.; Renault, B.; Van den Broeck, C.; Van Ertborn, O.
——, California.—Arnold, D., &c.; Claypole, E. W.; Hershey, O. H.
——, Corsica.—Brives, A.; Joleaud, A.
——, Dalmatia, &c.—Dainelli, G.; Martelli, A.; Oppenheim, P.; Schubert, R. J.; Stefani, C. de, &c.
——, Denmark.—Madsen, V.
——, East Anglia.—Harmer, F. W.; Monckton, H. W.
——, Egypt.—Ball, J.; Beadnell, H. J. L.; Oppenheim, P.
——, England (S.).—Monckton, H. W.; Reid, C.
——, France.—Boistel, A.; Boule, M.; Cossmann, M.; Douvillé, H.; Fallot, E.; Grossouvre, A. de; Jacquemet, E.; Kilian, W.; Leriche, M.; Ramond, G., &c.; Rouville, P. G. de; Thomas, H.; Vasseur, G.

Tertiary, Greece.—Major, C. I. F.
——, Hanover.—Koert, W.; Schmidt, M.
——, Italy.—Airaghi, C.; Audenino, L.; Checchia, G.; Dainelli, G.; Lotti, B.; Nicolis, E.; Oppenheim, P.; Pampaloni, L.; Ristori, G.; Rovereto, G.; Sacco, F.; Stefani, C. de; Stefano, G. de; Trentanove, G.; Ugolini, R.; Viola, C.
——, Kansas & Texas.—Adams, G. J.
——, London Basin.—Whitaker, W.
——, Maryland.—Newton, R. B.
——, Montana.—Douglass, E.
——, Nevada.—Turner, H. W.
——, New York.—Ries, H.
——, New Zealand.—Hutton, F. W.
——, Oregon.—Anderson, F. M.; Merriam, J. C.
——, Patagonia.—Ihering, H. von; Ortmann, A. E.
——, Prussia.—Gagel, C.; Jentzsch, A.
——, Rumania.—Mrazec, L., &c.; Simionescŭ, J.
——, Russia.—Andrusov, N.; Bogachev, V.; Golubiatnikov, D. V.; Luchitzki, W.; Pantocsek, J.; Simionescŭ, J.
——, Sardinia.—Lovisato, D.
——, Saxony.—Petrascheck, W.
——, Schleswig-Holstein.—Gagel, C.; Oppenheim, P.
——, Sicily.—Seguenza, L.
——, Spain.—Lambert, J.
——, Switzerland.—Kissling, E.; Preller, C. S. Du R.
——, Turkestan.—Bœhm, J.
——, Turkey.—Oppenheim, P.
——, Washington.—Landes, H.
——, Weimar.—Michael, R.
——, Westphalia.—Lotz, H.
——, Würtemberg.—Haag, F.; Stoller, J.
Tertre-lez-Baudour (Hainault).—Cornet, J.
Testudo.—Stefano, G. de.
Tetracrinus.—Remeš, M.
Tetragraptus.—Elles, G. L., &c.; Holm, G., &c.; Strandmark, J. E.
Teutoburger Wald (Germany).—Elbert, J.; Schlueter, C.; Stille, H.
Texas (U.S.A.).—Adams, G. I.; Gidley, J. W.; Girty, G. H.; Hatcher, J. B.; Hill, R. T.; Johnson, W. D.; Newell, F. H.; Simons, F. W.; Weed, W. H.
Textularia.—Chapman, F.; Fornasini, C.; Grzybowski, J.; Procházka, V. J.; Schubert, R. J.; Wright, J.
Thægoceras.—Crick, G. C.
Thalassemys.—Huene, F. von.
Thalenite.—Hillebrand, W. F.
Thalattosuchia.—Fraas, E.
Thames goldfield (N.Z.).—Park, J.
Thames Valley.—Hinton, M. A. C.; Newton, E. T.; Strahan, A.
Thamniscus.—Condra, C. B.
Tharandt (Saxony).—Mammen, F.; Sachs, A.
Thatcher Rock (Devon).—Hunt, A. R.
Thau, Lake (Hérault).—Jacquemet, E.
Thecia.—Počta, P.
Thecocyathus.—Wanner, J.
Theralite.—Buchan, J. S.; Romberg, J.
Theridomys.—Schlosser, M.
Thermal waters, mineral veins &.—Weed, W. H.
—— ——, St. Moritz.—Rothpletz, A.
—— ——, volcanoes &.—Suess, E.
—— ——, Würtemberg.—Eck, H.
Thesbia.—Brœgger, W. C., &c.
Theux (Liége).—Forir, H.
Thinnfeldia.—Roth, S., &c.
Thomashuxleya.—Ameghino, F.; Roth, S.
Thompson, Z. *See* Perkins, G. H.
Thomsonite.—Achiardi, G. d'.
Thoosa.—Rovereto, G.
Thoracoceras.—Clarke, F. W.
Thores, Mt. (Crimea).—Zemiatčenski, P.
Thornedale (Tasm.).—Twelvetrees, W.H.
Thoroddsen, Th. *See* Prinz, W.
Thracia.—Brœgger, W. C., &c.; Deninger, K.
Three Sisters (Oregon).—Fairbanks, H. W.
Thrussington (Leicester).—Rœchling, H. A., &c.
Thuringia (Germany).—Anon., 26; Bonney, T. G.; Boulenger, C.; Guerich, G.; Henkel, L.; Krusch, P.; Luedecke, O.; Moller, H.; Schlegel, K.; Wichdorff, H. H. von; Zalinski, E.; Zimmermann, E.
Thylax.—Renault, B.
Thysanocrinus.—Weller, S.
Ticino (Switzerland).—Garwood, E. J.; Heim A.; Mariani, E.
Tidaholm (Gotland).—Dusén, P.
Tidikelt & Tonat (French Sahara).—Flamand, G. B. M.
Tilberthwaite (Lancs).—Reade, T. M., &c.
Tilton (Leicester).—Rœchling, H. A.
Timan Mts. (Russia).—Lebedev, N.
Timanites.—Frech, F.
Timoclea.—Brœgger, W. C., &c.
Timor (Portuguese E. I.).—Macedo, J. de.
Tin, Alaska.—Brooks, A. H.
——, Banka.—Jongh, D. de, Jun.
——, Bolivia.—Spencer, L. J.
——, Cameroons.—Lacroix, A.
——, Cornwall & Devon.—Collins, J. H.
——, New South Wales.—Anon., 47; Carne, J. E.; Maclachlan, D. C.
——, Perak.—Hume, W. J. P., &c.
——, Queensland.—Cameron, W. E.; Rands, W. H.
——, Tasmania.—Twelvetrees, W. H.; Wallace, W. H., &c.; Waller, G. A.
——, Texas.—Weed, W. H.
——, tourmaline &.—Macalister, D. A.
——. *See also* Cassiterite.
Tinguaite.—David, T. W. E., &c.; Lacroix, A.
Tinoporus.—Chapman, F.
Tinpot (N.S.W.).—Jaquet, J. B.

Tippecanoe (Ind.).—Macbeth, W. A.; Marsters, V. F.
Tipton (Penn.).—White, D.
Tiree, I. (Scotland).—Coomáraswámy, A. K.
Titanite.—Ippen, J. A.; Pfeil, K.
Titanitic olivine.—Bœris, G.; Brugnatelli, L.
Titanomagnetite.—Arsandaux, H.
Titignano (Umbria).—Lotti, B.
Tivoli (Rome).—Meli, R.
Todea.—Seward, A. C.
Toll Polar Expedition.—Toll, E. von.
Tomaculum.—Groom, T. T., &c.
Tomini I. (Celebes).—Wichmann, A.
Tomsk (Siberia).—Kayser, E.; Peetz, H. von.
Tönder (Denmark).—Harder, P.
Tongking (Asia).—Frech, F.; Leclère, A.
Tonostylops.—Ameghino, F.
Topaz.—Twelvetrees, W. H.; Williams, A. V.
Torell, O. M. *See* Bather, F. A.
Tornatella.—Quaas, A.
Tornatellæa.—Stanton, T. W.; Wanner, J.
Tornoceras.—Frech, F.
Toronto (Canada).—Coleman, A. P.
Torquay (Devon).—Watson, J. A.
Torridonian.—Horne, J.; Machenry, A., &c.
Tortoises, Tertiary.—Hay, O. P.
——. *See also* Chelonia.
Tortonian.—Audenino, L.; Simionescŭ, J.
Toulon & Toulouse (France).—Michalet, A.
Tourcoing (Nord).—Videlaine, —.
Tourmaline.—Arsandaux, H.; Bowman, H. L.; Clarke, F. W.; Freyn, R.; Grundy, J.; Smyth, C. H., Jun.; Thomas, H. H.; Tschermak, G.; Viola, C.; Watson, T. L.
—— -granite, Saxony.—Bergt, W.
—— -quartzites, Thuringia.—Schlegel, K.
——, tin &.—Macalister, D. A.
Tournai (Hainault).—Anon., 63.
Towy R. (Caermarthen).—Codrington, T.
Toxochelys.—Wieland, G. R.
Toxodon.—Ameghino, F.; Mercerat, A.
Toxopneustes.—Ortmann, A. E.
Trachichthyoides.—Woodward, A. S.
Trachodon.—Lambe, L. M.
Trachynautilus.—Frech, F.
Trachypatagus.—Oppenheim, P.
Trachypora.—Reed, F. R. C.
Trachytes, Dauphiné.—Termier, P.
——, Devon.—Ussher, W. A. E.
——, Madagascar.—Lacroix, A.
——, New Zealand.—Dieseldorff, A.
——, Phlegræan Fields.—Manasse, E.
——, Styria.—Sigmund, A.
——, Venetia.—Dal Piaz, G.
Tragoceras.—Seguenza, L.
Tramutola (Basilicata).—Crema, C.
Transcaucasus (Asia Minor).—Lebedev, N.; Lysakovski, C.
Transvaal, &c. (S. Africa).—Anon., 27, 29; Gibson, W.; Hammond, J. H.; Herbertson, A. J.; Launay, L. de; Molengraaff, G. A. F.; Pearson, H.; Smith, W.
Transverse valleys, Jura.—Chanel, E.
Transylvania (Hungary).—Baumgartner, K.; Goldschmidt, V.; Kalecsinski, A. von; Nopčsa, F., jun.; Renault, B.; Telegd, L. R. von.
Trave R. (N. Germany).—Struck, R.
Travertine, Rome.—Meli, R.
—— sand, Thuringia.—Moller, H.
Traversella (Piedmont).—Novarese, V.
Trees, post-Glacial Scottish forest-.—Niven, W. N.
——, silicified.—Fourmarier, P.; Hobbs, W. H.; Pampaloni, L.; Renault, B.; Van den Broeck, E.
Trematopora.—Počta, P.
Trematospira.—Clarke, J. M.
Trent (Tyrol).—Oppenheim, P.
Trenton Conglomerate, New York.—Ruedemann, R.
—— formation, Baffin Land.—Schuchert, C.
Trépail (Marne).—Martel, E. A.
Tretaspis.—Ruedemann, R.
Trevose Head (Cornwall).—Fox, H.
Triarthrus.—Beecher, C. E.
Trias, Africa (S.).—Stromer, E.
——, America (N.).—Smith, J. P.
——, Austria-Hungary.—Bittner, A.; Gordon, M. M. O.; Katzer, F.; Kossmat, F.; Mojsisovics, E. von; Pálfy, M. von; Sussmann, O.; Vacek, M.
——, Baden & Würtemberg.—Koken, E.
——, Bavaria.—Blanckenhorn, M.; Reis, O. M.
——, Borneo.—Vogel, F.
——, Brazil.—Bodenbender, G.
——, California & Nevada.—Merriam, J. C.
——, Carnic Alps.—Gortani, M.
——, Colorado.—Knight, W. C.
——, Connecticut.—Hobbs, W. H.
——, Dakota.—Hovey, E. O.
——, Devon.—Thomas, H. H.; Ussher, W. A. E.
——, Dorset.—Jukes-Browne, A. J.
——, Elgin.—Mackie, W.
——, France.—Bertrand, L.; Collot, —.
——, Holland.—Mueller, G.
——, lamellibranch-zones.—Smith, J. P.
——, Leicestershire.—Rœchling, H. A., &c.; Watts, W. W.
——, Lombardy.—Mariani, E.; Tommasi, A.
——, Man, I. of.—Dawkins, W. B.
——, Massachusetts.—Emerson, B. K.
——, New York.—Kuemmel, H. B.
——, occurrence of.—Frech, F.
——, Orange-River Colony.—Schellwien, E.
—— pebbles, N. German gravels with.—Linstow, O. von
——, Pennsylvania.—Lyman, B. S.
——, Sardinia.—Tornquist, A.

Trias, Silesia.—Volz, W.
——, Spain.—Mallada, L.
——, Staffordshire. — Thompson, B.; Woodward, A. S.
——, Tyrol. — Gordon, M. M. O.; Keyserling, H. von.
——, Venetia.—Longhi, P.
——, Wales (S.). — Strahan, A., &c.; Teall, J. J. H.
Tribloceras.—Weller, S.
Triceratium.—Ries, H.
Trichograptus.—Elles, G. L., &c.
Trichopitys.—Krasser, F.
Trichotropis, Tridonta, & *Triforis.*—Brœgger, W. C., &c.
Tridacna.—Reis, O. M.
Trient (Valais).—Brunhes, J.
Trierostephanos.—Ameghino, F.
Trieste (Austria).—Moser, L. K.
Trigonia.—Hill, R. T.; Loriol, P. de, &c.; Roth, S., &c.; Stanton, T. W.; Sturm, F.
Trigonocarpus.—Kidston, R.
Trigonopora.—Maplestone, C. M.
Triisodon.—Matthew, W. D.
Trilobites, Cambrian. — Grœnwall, K. A.; Groom, T. T.; Holm, G., &c.; Moberg, J. C.; Pompeckj, J. F.; Reed, F. R. C.; Woodward, H.
——, Carboniferous.—Woodward, H.
——, Devonian. — Drevermann, F.; Maurer, F.; Œhlert, D. P.; Reed, F. R. C.
——, limbs of.—Jækel, O.
——, Ordovician.—Beecher, C. E.
——, Silurian.—Clarke, J. M.; Moberg, J. C.; Reed, F. R. C.; Ruedemann, R.; Schuchert, C.
——, ventral integument of.—Beecher, C. E.
Trilobodon.—Roth, S.
Trinidad (W.I.).—Spencer, J. W. W.
Trinucleus.—Holm, G., &c.
Trionyx.—Bell, R., &c.; Lambe, L. M.
Triplophyllum.—Simpson, G. B.
Triton.—Quaas, A.; Wanner, J.
Tritonidea.—Cossmann, M.
Tritonium. — Ortmann, A. E.; Ravn, J. P. J.
Trivia.—Brœgger, W. C., &c.
Trochactæon.—Choffat, P.; Rehbinder, B. von.
Trochammina.—Friedberg, W.; Grzybowski, J.; Schubert, R. J.
Trochanterium.—Huene, F. von.
Trochoceras.—Reed, F. R. C.
Trochocyathus.—Wanner, J.
Trocholites.—Holm, G., &c.
Trochus.—Quaas, A.; Schuchert, C.; Simionescŭ, J.
Trogontherium.—Newton, E. T.
Trompia, Val (Lombardy). — Baltzer, A.; Clerici, E.
Trondhjem (Norway).—Brœgger, W. C., &c.; Reusch, H.
Trophon.—Brœgger, W. C., &c.; Ortmann, A. E.
Tropidocaris.—Beecher, C. E.
Tropidodiscus.—Weller, S.
Tropidoleptus.—Drevermann, F.
Truncatella.—Cossmann, M.
Truncatulina.—Chapman, F.; Liebus, A.; Prochazka, V. J.
Trypocella.—Maplestone, C. M.
Tudicla. — Quaas, A.; Sturm, F.; Wollemann, A.
Tufa, calcareous.—Lohest, M.; Wuest, E.
——, Paris Basin siliceous.—Meunier, St.
Tuff, Asia Minor.—Leonhard, R.
——, Fife.—Geikie, Sir A.
——, Italy.—Clerici, E.
——, Oregon.—Calkins, F. C.
——, Predazzo.—Romberg, J.
——, sandstone-pillar in.—Eck, H.
——, Scania.—Hennig, A.
——, Styria.—Sigmund, A.
—— - breccias, Wiesbaden. — Drevermann, F.
Tugela R. (S. Africa).—Anderson, W.
Tugurt (Algeria).—King, W. J. H.
Tulameen R. (British Columbia). — Kemp, J. F.
Tulloch Burn (Ayr).—Geikie, J., &c.
Tumkur (Mysore). — Sambasiva Iyer, V. S.
Tungsten, United States.—Pratt, J. H.
Tunilites.—Hill, R. T.
Tunis (N. Africa).—Joleaud, A.; Pelatan, L.; Pervinquière, L.
Tunnel, Simplon.—Gœgg, G.
Turbo.—Broili, F.; Dainelli, G.; Deninger, K.; Gortani, M.; Schlosser, M.
Turbonilla.—Procházka, V. J.
Turf. *See* Peat.
Turin Observatory, earthquakes &. — Volta, L.
Turkestan (Asia).—Bœhm, J.; Krafft, A. von; Lebedev, N.; Oldham, R. D.
Turkey (Asiatic). *See* Asia Minor, &c.
—— (Europe).—Anon., 65; Cvijič, J.; English, T.; Hilber, V.; Oppenheim, P.
Turnus.—Stanton, T. W.
Turonian, France.—Thevenin, A.
——, Germany (N.).—Volz, W.; Wollemann, A.
Turrilepas.—Ruedemann, R.
Turritella. — Brœgger, W. C., &c.; Burckhardt, C.; Dainelli, G.; Hill, R. T.; Ortmann, A. E.; Quaas, A.; Rehbinder, B. von; Schlosser, M.; Sturm, F.; Trentanove, G.
Turritoma.—Donald, J.
Turtles, Cretaceous.—Wieland, G. R.
Tuscany (Italy).—Achiardi, G. d'; Angelis d'Ossat, G. de; Anon., 22; Levi, G.; Lotti, B.; Pampaloni, L.; Ricci, A.; Spirek, V.; Trabucco, G.; Trentanove, G.; Ugolini, R.; Vinassa de Regny, P.
Tusnád, Bad (Transylvania). — Baumgartner, K.
Tvedestrand (Norway).—Tertsch, —.
Tylostoma.—Ravn, J. P. J.
Tyne Valley (Durham, &c.).—Dwerryhouse, A. R.

Types, American Museum of Natural History, New York.—Whitfield, R. P., &c.
——, (British Museum) Maryland Tertiary.—Newton, R. B.
——, Geological Survey.—Allen, H. A.
——, Norwich-Castle Museum.—Leney, F.
——, palæontological.—Mourlon, M.
Typhoid fever, ground-water &.—Wellburn, E. D.
Tyrol (Austria).—Ampferer, O.; Focke, F.; Gordon, M. M. O.; Hammer, W.; Ippen, J. A.; Kerner, F. von; Keyserling, H. von; Mojsisovics, E. von; Oppenheim, P.; Penck, A., &c.; Romberg, J.; Schubert, R. J.; Trener, G. B.; Wæhner, F.
Tyrone (Ireland).—Barrow, G.

Uap I. (Caroline Is.).—Kayser, E.
Uddevalla (Gotland).—Lindstrœm, A.
Uebelbach (Styria).—Setz, W.
Uintacrinus.—Jesup, M. K.; Springer, F.
Uitenhage (Cape Colony).—Rogers, A. W., &c.
Uliveto (Tuscany).—Ugolini, R.
Ulmannia.—Arcangeli, G.
Ulmus.—Cullis, C. G., &c.
Ulodendron.—Potonié, H.
Ulten Valley (Tyrol).—Hammer, W.
Ultropithecus.—Roth, S.
Umbria (Italy).—Angelis d'Ossat, G. de; Lotti, B.; Ristori, G.
Una Una I. (Celebes).—Wichmann, A.
Uncinulus.—Drevermann, F.
Unger, F. *See* Wiesner, J.
Unicardium.—Janensch, W.; Loriol, P. de, &c.
Unio.—Lœrenthay, E.; Pallary, P.
United States, mineral resources.—Day, T. D.
——. *See also* Antimony, Asbestos, &c.
Unstrut R. (Thuringia).—Henkel, L.
Uphill (Somerset).—Bolton, H., &c.; Wilson, E., &c.
Upnor (Kent).—Bird, C., &c.
Upway (Dorset).—Darwin, H.
Urago Mella (Lombardy).—Cacciamali, G. B.
Urals (Russia).—Duparc, L.; Kemp, J. F.; Koniushevski, L.; Kovalev, P.; Krasnopolski, A.; Lebedev, N.; St. Rainer, L.
Uranium, United States.—Pratt, J. H.
Uranophane.—Watson, T. L.
Urenchelys.—Woodward, A. S.
Urosalpinx.—Ortmann, A. E.
Ursavus.—Redlich, K. A.; Schlosser, M.
Ursus.—Flores, E.; Holst, N. O.; Ugolini, R.
Uruguay (S. Am.).—Arçtowski, H.
Ussuria.—Frech, F.
Utætus.—Ameghino, F.
Utah (U.S.A.).—Emmons, S. F.; Lakes, A.; Spurr, J. E.; Talmage, J. E.
Utembue (Lake Tanganyika).—Langhans, P.
Utriculus.—Brœgger, W. C., &c.
Uwarowite.—Borgstrœm, L. H.
Uzès (Gard).—Pellat, E.

Vaberget (Sweden).—Hedstrœm, H.
Vadsö (Finmark).—Norman, A. M.
Værdal (Norway).—Reusch, H.
Valais (Switzerland).—Bonney, T. G.; Martel, E. A.
Valangian.—Rouville, P. G. de; Sayn, G.
Valencia (Spain).—Nicklès, R.
Valencia Co. (New Mexico).—Johnson, D. W.
Valley, Allegheny-basin.—Williams, E. H., Jun.
——, Elgin pre-Glacial.—Hinxman, L. W., &c.
—— erosion.—Dallemagne, H.
——, glaciated submerged.—Codrington, T.
——, Wyoming buried.—Lyman, B. S.
Valleys, Alpine.—Bonney, T. G.; Garwood, E. J.; Kilian, W.
——, Chalk.—Martin, E. A.
——, Cork, Co.—Anon., 45.
——, hanging.—Bonney, T. G.; Garwood, E. J.
——, Jura transverse.—Chanel, E.
——, limestone-blocked.—Kilian, W.
——, Norway.—Monckton, H. W.; Reusch, H.
——, Ohio-basin older.—Campbell, M. R.
——, river-.—Anon., 45; Avebury, Lord; Buckman, S. S.; Lake, P.; Mackinder, H. J.; Strahan, A.
——. *See also* Rivers, &c.
——, Rocky Mts. broad.—Shaler, N. S.
——, submerged.—Hull, E.
——, terraces in.—Lamothe, — de.
Valvata.—Andrusov, N.; Cossmann, M.; Lœrenthay, E.
Valverde (Ciudad Real).—Coello, C.
Valvulina.—Chapman, F.
Vanadium.—Dieseldorff, A.; Pratt, J. H.
Vancouver I. (B.C.).—Robertson, W. F.
Van Rhyn's Dorp (Cape Colony).—Rogers, A. W., &c.
Vanuxemia.—Schuchert, C.
Var (France).—Emmons, S. F.; Michalet, A.
Varanger Fjord (Norway).—Norman, A. M.
Vardeilsen (Hanover).—Schmidt, M.
Várhely (Hungary).—Schafarzik, F.
Variolite, Rumania.—Nicolau, T.
Vasa (Finland).—Hammerstrœm, R.
Vatcha R. (Siberia).—Gerasem, A. P.
Vaucluse (France).—Fournier, E.; Martel, E. A.
Vaud (Switzerland).—Rittener, T.
Vaugirard (Paris).—Boule, M.
Veglia I. (Illyria).—Waagen, L.
Veins, origin of.—Barrois, C.; Brœgger, W. C., &c.; Delkeskamp, R.; Foster, C. Le N.; Maclaren, J. M.; Marr, J. E.; Ransome, F. L.; Weed, W. H.

Venericardia.—Cossmann, M.
Venerupis.—Hunt, A. R.
Venetia (Italy).—Bœhm, G.; Dal Piaz, G.; Longhi, P.; Omboni, G.; Oppenheim, P.; Stella, A.; Toldo, G.; Zanolli, V.
Venilla.—Hill, R. T.
Ventriculites.—Quaas, A.; Wanner, J.
Venus.—Brœgger, W. C., &c.; Dainelli, G.; Nœtling, F.; Ortmann, A. E.; Procházka, V. J.; Sturm, F.; Trentanove, G.
Verapaz, Alta (Guatemala).—Sapper, K.
Vercors (Dauphiné).—Lory, P.
Verde Is., Cape.—Macedo, J. de.
Verde, Sierra (Mexico). — Krustchov, K. von.
Vermes, Cretaceous.—Quaas, A.
Vermilion (Minn.).—Van Hise, C. R.
Vermetus.—Ortmann, A. E.; Quaas, A.
Vermipora.—Clarke, J. M.
Vermont (U.S.A.). — Davis, W. M.; Finlay, G. I.; Kemp, J. F.
Verneuilina. — Grzybowski, J.; Procházka, V. J.
Vernon, Mt. (Iowa).—Hann, F.
Verona (Italy). — Nicolis, E.; Oppenheim, P.
Verruca.—Ortmann, A. E.
Vertebraria.—Zeiller, R.
Vespren (Hungary). — Jækel, O.; Lóczy, L. von.
Vesterbotten (Sweden).—Munthe, H.
Vesuvian. *See* Idocrase.
Vesuvianite.—Turner, H. W.
Vesuvius (Italy). — Cermenati, M.; Matteucci, R. V.; Verri, A.; Weingarten, P.
—— (—), lava-domes.—Mercalli, G.
Vevay (Indiana).—Cumings, E. R., &c.
Vezin (Namur).—Stainier, X.
VICAIRE, E. *See* Ocagne, — d', &c.
Victoria (Austral.). — Ashby, E., &c.; Dun, W. S.; Grant, F. E.; Gregory, J. W.; Hall, T. S.; Hart, T. S.; Jenkins, H. C.; Kitson, A. E.; Maplestone, C. M; Macivor, R. W. E.; Mennell, F. P.; Mulder, J. F.; Stirling, J.; Thiele, E. O., &c.; Woodward, A. S.
Vierzonite.—Peron, A.
Villa Cogozzo (Lombardy). — Cacciamali, G. B.
Villefranque (Basses-Pyrénées). — Bertrand, L.
Villenauxe (Seine-et-Marne).—Thomas, H.
Villiers-Saint-George (Seine-et-Marne). Thomas, H.
Vilna (Russia).—Missuna, A.
Vinica (Croatia). — Gorganovič-Kramberger, K.
Violaite.—Gaubert, P.
Virginia, West (U.S.A.).—Jones, C. C.; White, I. C.
Virgulina.—Procházka, V. J.; Liebus, A.
Visé (Liége).—Bourgeat, —; Destinez, P.; Fourmarier, P.
Viso, Monte (Piedmont). — Bodmer-Beder, A.
Visp Valley (Valais).—Bonney, T. G.
Viterbo (Rome).—Stefani, C. de.
Viverravus.—Matthew, W. D.
Viviers (Ardèche).—Sayn, G., &c.
Viviparus.—Cossmann, M.
Vladislavovka (Crimea).—Andrusov, N.
Vodice (Dalmatia).—Schubert, R. J.
Vogelvlei (Cape Colony).—Schwarz, E. H. L.
Vogtland (Saxony).—Credner, H.; Kruft, L.
Vola.—Brœgger, W. C., &c.; Choffat, P.; Ravn, J. P. J.; Roth, S., &c.
Volcanic beds, Waitemata.—Fox, C. E.
—— bombs, Transylvania.—Baumgartner, K.
—— dust. *See* Dust.
—— eruptions. — Espin, T. E.; Felix, J., &c.; Reusch, H., &c.; Sabatini, V.; Schuetze, E.
—— —— Iceland.—Stefansson, J.
—— ——, magmas &.—Arsandaux, H.
—— —— (historic), Nicaragua.—Crawford, J.
—— ——, solar energy &.—Lockyer, Sir Norman.
—— ——, Vesuvius.—Cermenati, M.; Matteucci, R. V.; Mercalli, G.; Verri, A.; Weingarten, P.
—— ——. *See also* Martinique, St. Vincent, &c.
—— —— zone, Formosa-Japan.—Richthofen, F. von.
—— lava, brick-clays from.—Brunhes, B., &c.
—— necks, Fife.—Geikie, Sir A.
—— pipes.—Sabatini, V.
—— rocks. *See* Igneous rocks, &c.
—— sea-mud.—Murray, Sir John.
Volcanoes, America (S.).—Bergeat, A.; Stuebel, A.
——, Auvergne.—Cullis, C. G., &c.
——, Celebes.—Wichmann, A.
——, Colorado.—Lakes, A.
——, earth's crust &.—Grosser, —.
——, Ecuador.—Reiss, W., &c.
——, Hawaii.—Bishop, S. E.; Hitchcock, C. H.
——, Patagonia.—Holdich, Sir T. H.
——, Italy.—Manasse, E.; Matteucci, R. V.; Verri, A.; Viola, C.
——, Java.—Houwink, L.
——, Kamchatka.—Tuczeck, P.
——, Oregon.—Fairbanks, H. W.
——, origin of.—Brun, A.; Lapparent, A. de; Schuetze, E.; Stuebel, A.; Taquin, A.
——, Scottish Tertiary.—Horne, J.
——, thermal waters &.—Suess, E.
——, West Indies.—Anderson, T., &c.; André, E.; Anon., 38, 39, 40, 41, 45; Bonney, T. G.; Divers, E.; Garnier, J.
——. *See also* Martinique, St. Vincent; Dust, &c.
Volga River (Russia). — Bertrand, J.; Nehring, A.

Volutilithes.—Quaas, A.
Volutomitra.—Ravn, J. P. J.
Volutopsis.—Brœgger, W. C., &c.
Volvaria.—Cossmann, M.
Volvula.—Brœgger, W. C., &c.; Choffat, P.; Ortmann A. E.; Quaas, A.; Ravn, J. P. J.
Vorarlberg (Austria).—Blaas, J.; Lorenz, T.
Vosges (France).—Bonney, T. G.; Dormal, V.
Vrana (Dalmatia).—Schubert, R. J.
Vryheid (Natal).—Molengraaff, G. A. F.

Wabash R. (Ind.).—Macbeth, W. A.
WAEL, N. C. L. de. *See* Van Ertborn, O.
Waes, Pays de (Flanders).—Van Ertborn, O.
Waihi (N.Z.).—Park, J.
Waitemata Series.—Fox, C. E.; Mulgan, E. K.
Waitotara R. (N.Z.).—Dawkins, W. B.
Walchia.—Kidston, R.
Walcourt (Namur).—Forir, H.
Waldenburg (Lower Silesia).—Dathe, E.
Waldheimia.—Brœgger, W. C., &c.
Wales, Mines & Quarries.—Atkinson, J. B.; Foster, C. Le N., &c.; Hall, H.
—— (N.).—Jukes-Browne, A. J.; Callaway, C.; Greenly, E.; Lake, P.; Marr, J. E.; Matley, C. A.; Sherborn, C. D.; Strahan, A.
—— (S.).—Anon., 34; Pollard, W.; Reid, C.; Strahan, A.; Woodward, H. B.; Teall, J. J. H., &c.
Walfisch Bay (S.W. Africa).—Schenck, A.
WALKER, A. E. *See* Anon., 15.
Wallaroo (S. Austral.).—Hancock, H. L.
Walsham (Norfolk).—Reid, C.
Waltonian.—Harmer, F. W.
Wankie (Rhodesia).—Anon., 27.
WARDELL, F. N. *See* Anon., 16.
Warora (Central Provinces).—Clarke, R. W.
Warp, origin of.—Wheeler, W. H.
Warren, ancient lake.—Leverett, F.
Warren Co. (N.Y.).—Kemp, J. F., &c.
Warren Basin (W. Austral.).—Gœczel, S.
Washington Colliery (Durham).—Brown, M. W., &c.
Washington Co. (N.Y.).—Kemp, J. F., &c.
—— State (U.S.A.).—Landes, H.; Shed, S.; Winchell, N. H.
Water, Antwerp.—Kemna, A.; Rutot, A.
——, Australian artesian.—Cox, W. G.
——, Berkshire.—Blake, J. H., &c.
——, Brecon.—Wight, W. D.
——, Brünn.—Tietze, E.
——, Cape Colony.—Ritso, B. W.
——, chlorine in.—Myers, W. S.
——, Ciudad Real.—Coello, C.
——, Cleveland (Oh.).—Pierce, S. J.
——, Colorado.—Johnson, W. D.; Newall, F. H.
—— coloration of.—Jerome, A.
——, Dakota, &c.—Darton, N. H.
Water, Devon.—Ussher, W. A. E.
——, distribution of.—Habets, A.; Harris, G. H.
—— -divining.—Barrett, W. F., &c.; Darcy, —; Lefebvre, A.
——, Egypt.—Ball, J; Lucas, A.
——, Ekaterinoslav Gov.—Golubiatnikov, D.; Vosnessenski, V.
—— filtration (natural) of.—Van den Broeck, E.; Martel, E. A.; Rabozée, H.; Spring, W.
——, geology &.—Elsden, J. V.
——, Gironde.—Fallot, E.
——, Hants.—Reid, C., &c.
——, Hesse.—Luedecke, C.; Steuer, A.
——, Hungary.—Pošewitz, T.
—— inclusions, crystals.—Achiardi, A. d'.
——, Jerusalem.—Wilson, Sir C. W.
——, Jura.—Fournier, E.
——, Kansas.—Johnson, W. D.; Newell, F. H.
——, Liége.—Lohest, M., &c.; Questienne, P.
——, Lincoln.—Anon., 69.
——, microscopy of drinking.—Whipple, G. C.
——, Minnesota.—Berkey, C. P.
——, Missouri.—Marbut, C. F.
——, Moray-Firth basin.—Mackie, W.
——, Muttra.—Leather, J. W.
——, Mysore.—Smeeth, W. F.
——, Namur.—Rabozée, H.; Rahir, E.
——, New Jersey.—Kuemmel, H. B.
——, New Mexico.—Johnson, W. D.; Newell, F. H.
——, New South Wales.—Anon., 25.
——, New Zealand.—Page, S.
——, Queensland.—Jack, R. L.
——, Sahara.—Flamand, G. B. M.; Lahache, —.
—— supply.—Griffith, P.; Janet, L.
——, Texas.—Hill, R. T.; Johnson, W. D.; Newell, F. H.
——, typhoid fever & ground-.—Wellburn, E. D.
——, Umbria.—Ristori, G.
——, underground.—Fournier, E.; Guenther, S.
——, United States drainage.—Kemna, A.; Newell, F. H.
——, Vorarlberg.—Blaas, J.
——, Westphalia.—Middelschulte, A.
——, Yorkshire underground.—Dwerryhouse, A. R., &c.
——. *See also* Artesian.
Waterberg (Transvaal).—Molengraaff, G. A. F.
'Water-biscuit,' Canandaigua Lake.—Clarke, J. M.
Watergate Bay (Cornwall).—Fox, H.
Waterpark Creek (Queensl.).—Cameron, W. E.
Wavellite.—Zambonini, F.
Waverly formation.—Beecher, C. E.
Waves, sand, &c.—Cornish, V.
——, shore-drift &.—Hunt, A. R.; Wheeler, W. H.

Waves, shore-terrace.—Fenneman, N. M.
——, terrestrial surface-.—Cornish, V., &c.
Wavre (Brabant).—Stainier, X.
Wea Creek (Ind.).—Macbeth, W. A.
Weald (Kent, &c.).—Geikie, J.
Wealden, Belgium.—Bommer, C.; Cornet, J., &c.; De Pauw, L.; Van den Broeck, E.
——, France.—Sauvage, H. E.
Weardale (Durham).—Dwerryhouse, A. R.
Weathering, rock-.—Watson, T. L.; Wheeler, W. H.
Webbina.—Grzybowski, J.
Webster Co. (Mo.).—Weller, S.
Wehrlite.—Duparc, L.
Weimar (Germany).—Kruft, L.; Michael, R.; Moller, H.
Weisbach, A. *See* Goldschmidt, V.
Weissenbach (Austria).—Bittner, A.
Weitendorf (Styria).—Dathe, E.
Wells. *See* Borings, &c.
Wellstown (N.Y.).—Kemp, J. F.
Welwyn (Herts).—Salter, J. E.
Wemyss (Fife).—Kirkby, R.
Wengen Shales.—Keyserling, H. von.
Werfen Beds, Bosnia.—Katzer, F.
Werra R. (Meiningen).—Walther, J.
Werribee R. (Victoria).—Kitson, J. E.
West Indies.—Anon., 38, 39, 40, 41, 45; Spencer, J. W. W.
——. *See also* Martinique, St. Vincent, Guadeloupe, &c.
Westbury-on-Severn (Gloucester).—Buckman, S. S., &c.
Westfield R. (Mass.).—Davis, W. M.
Westleton Beds.—Harmer, F. W.; Woodward, H. B.
Westmoreland.—Harker, A.; Johnston, R. M.; Jukes-Browne, A. J.; Kendall, P. F.; Marr, J. E.; Rhodes, J.
Weston-super-Mare (Somerset).—Bolton, H., &c.
Westphalia (Germany).—Denckmann, A.; Holzapfel, E.; Kayser, E.; Kœnen, C.; Lotz, H.; Middelschulte, A.; Stille, H.
Wetstones, United States.—Pratt, J. H.
Whales, Tertiary.—Abel, O.
Wheatley (Oxon).—Blake, J. F.
Whin Dyke, Great Ayton.—Barrow, G.
Whin Sill, Great (N. England).—Anon., 67; Lee, J.
White-leaved-Oak Shales.—Groom, T. T., &c.
White-River Beds.—Douglass, E.
White, T. G. *See* Kemp, J. F.
Whiteavesia & *Whitella.*—Schuchert, C.
Whymper, E. *See* Bonney, T. G.; Woodward, H.
Wiesbaden (Germany).—Dœrmer, L.; Drevermann, F.
Wight, I. of.—Jukes-Browne, A. J.
Wigton (Leicester).—Rœchling, H. A.
Wildbad (Würtemberg.).—Eck, H.
Wildkreuzjoch (Tyrol).—Focke, F.
Willebroeck canal (Antwerp).—Mourlon, M.
Williams, W. *See* Anon., 17.
Williamsonia.—Hill, R. F.
Williamstown (Victoria).—Grant, F. E., &c.
Wiltshire, T. *See* Anon., 18; Harrison, W. J.; Reid, C.; Reynolds, S. H.; Woodward, H. B.
Wingello (N.S.W.).—Deane, H.
Windward Is. (W.I.). *See* Barbados, Martinique, &c.
Windworn stones.—Abel, O.; Dawkins, W. B.; Mackie, W.
Winona, Lake (Ind.).—Youse, L.
Wisconsin (U.S.A.).—Collie, G. L.; Upham, W.; Van Hise, C. R.
Withernsea (Yorks).—Sheppard, T.
Witteberg Beds.—Gibson, W.
Witwatersrand (Transvaal).—Hammond, J. H.; Pearson, H.
Wolds, Lincolnshire, &c.—Jukes-Browne, A. J.
Wolfenbüttel (Brunswick).—Wollemann, A.
Wolfram, Tasmania.—Waller, G. A.
Wollastonite, Ceylon.—Coomáraswámy, A. K.
Wolvercote (Oxon).—Bell, A. M.
Wolynka Valley (Böhmerwald).—Woldřich, J., jun.
Wood, fossil.—Bommer, C.
——, silicified.—Fourmarier, P.; Hobbs, W. H.; Pampaloni, L.; Renault, B.; Van den Broeck, E.
Wood's-Point Dyke (Victoria).—Mennell, F. P.
Woodhay (Berks).—White, H. J. O.
Woodstock (Conn.).—Eggleston, J. W.
Woodward, H. *See* Lydekker, R.
Woodwardian Museum, Cambridge.—Arber, E. A. N.; Kurtz, F.; Reed, F. R. C.
Wookey-Hole Cave (Somerset).—Hunt, A. R.
Wool Bay (S. Austral.).—Basedow, H.
Woolagiri (Mysore).—Smeeth, W. F.
Wootton-Bassett (Wilts).—Reynolds, S. H., &c.; Woodward, H. B.
Worcester (Cape Colony).—Rogers, A. W.
Worcestershire.—Cantrill, T. C.; Richardson, L.
Worthenia.—Weller, S.
Wrangell Mts. (Alaska).—Rohn, O.
Wreak Valley (Leicester).—Rœchling, H. A., &c.
Wrington (Somerset).—Richardson, L.
Würtemberg (Germany).—Eck, H.; Haag, F.; Knebel, W. von; Koken, E.; Lœrcher, O.; Regelmann, C.; Schlosser, M.; Schmidt, A.; Schuetze, E.; Stoller, J.
Wutach R. (Baden).—Steinmann, G.
Wychmael (Belgian Limburg).—Van Ertborn, O.
Wynyard (Tasmania).—Kitson, A. E.

Wyoming (U.S.A.).—Darton, N. H.; Granger, W.; Hatcher, J. B.; Hovey, E. O.; Knight, W. C.; Loomis, F. B.; Lyman, B. S.; Matthes, F. E.

Xenophyton.—Weiss, F. E.
Xenotime.—Kraus, E. H., &c.; Rœsler, H.
Xeros, Gulf of (Turkey).—English, T.
Xestoleberis.—Chapman, F.
Xhendremael (Liége).—Lohest, M., &c.
Xiphosuria, Devonian.—Beecher, C. E.

Yaeyama Is. (Pacific).—Yoshiwara, S.
Yaïla (Crimea).—Danilov, E.
Yalwal (N.S.W.).—Andrews, E. C.
Yarmouth & Lowestoft Ry. cutting.—Woodward, H. B.
Yarra R. (Victoria).—Kitson, A. E.
Yeats, J. *See* Anon., 19.
Yellowstone Park (U.S.A.).—Fraas, E.
Yenisei R. (Siberia).—Ijitzk, N., &c.; Meister, A.; Yachevski, L.
Yentnite.—Lœwinson-Lessing, F.
Yew, fossil.—Longe, F. D.; Newton, E. T.
—— in Great Britain & Ireland.—Conwentz, H.
Yoldia-clay, Scandinavia.—Brœgger, W. C., &c.; Munthe, H.
—— -marls, Finland.—Hammarstrœm, R.
Yonne (France).—Peron, A.; Valette, A.
Yoredale Series.—Barnes, J.; Rhodes, J.
York Region (Alaska).—Brooks, A. H.
Yorkshire.—Ackroyd, W.; Anon., 67; Barrow, G.; Dwerryhouse, A. R.; Gibson, W.; Hind, W.; Hughes, T. McK.; Jukes-Browne, A. J.; Kendall, P. F.; Kidston, R.; Rhodes, J.; Sheppard, T.; Stather, J.; Walford, E. A.; Wellburn, E. D.
Young, J. *See* Anon., 20.
Yr Eifl (Caernarvonshire).—Greenwell, A., &c.
Ystad (Scania).—Holst, N. O.
Yttrialite.—Hillebrand, W. F.
Yttrium.—Dennis, L. M., &c.
Yukon (N.W. Canada).—Bell, R., &c.; Macconnell, R. G.
Yun-Nan (China).—Leclère, A.
Yvor (Namur).—Rabozée, H.; Rahir, E.; Soreil, G.

Zacanthoides.—Woodward, H.
Zamites.—Hill, R. T.
Zanzibar.—Crossland, C.
Zaravecchia (Dalmatia).—Schubert, R. J.
Zechner, F. *See* Vacek, M.
Zeehan (Tasm.).—Twelvetrees, W. H.
Zeolites.—Billows, E.; Rimatori, C.; Rinne, F.; Zambonini, F.; Zanolli, V.
Zeya R. (Siberia).—Ivanov, M. M.; Yavorovski, P. K.
Zi-Ka Wei Observatory (China).—Moidrey, — de.
Ziller Valley (Tyrol).—Focke, F.
Zinc, Algeria.—Coignard, —, &c.; Pelatan, L.
——, Carinthia.—Sussmann, O.
——, France.—Coignard, —, &c.
——, Indo-China.—Pelatan, L.
——, Mississippi Valley.—Van Hise, C. R.
——, Missouri.—Horten, A.
——, New Jersey.—Kuemmel, H. B., &c.
——, Sweden.—Beck, R.
——, Tasmania.—Craze, J.; Waller, G. A.
——, Tuscany.—Spirek, V.
——, United States, &c.—Kirchhoff, C.
——, ——. *See also* Missouri, &c.
Zircon.—Brugnatelli, L.; Church, A. H.; Thomas, H. H.
Zirphæa.—Brœgger, W. C., &c.
Zittel, K. A. von. *See* Rickman, T. M.
Ziziphinus.—Loriol, P. de, &c.
Zlatoust (Orenburg).—Koniushevski, L.
Zones, Carboniferous life-.—Hind, W.; Rhodes, J.
Zophocrinus.—Weller, S.
Zöptau (Moravia).—Neuwirth, V.
Zsily (Transylvania).—Renault, B.
Zululand (S. Africa).—Anderson, W.; Gray, C. J., &c.
Zurich (Switzerland).—Preller, C. S. DuR.
Zuzlawitz limestone, Böhmerwald.—Woldřich, J., Jun.
Zweinetz (Carinthia).—Canaval, R.

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List of Abbreviations used for the Names of Publications, Societies, and Public Bodies.

Aarsh. = Aarshefter.
Abh. = Abhandlungen.
Abs. = Abstracts.
Acad. = Academy.
Actes = *also* Verh.
Afh. = Afhandlingar.
Agr. = Agriculture.
Allgem. = Allgemeine.
An. = Anales.
Ann. = Annals, Annuaire, Annual, etc.
Anthr. = Anthropologie, etc.
Anz. = Anzeiger.
Arch. = Archiv, Archives.
Archæol. = Archæologist, Archæology, etc.
Årsskr. = Årsskrift.
Assoc. = Association.
Austral. = Australia, etc.
Balk. = Balkanique.
Beitr. = Beiträge.
Ber. = Bericht, Berichte.
Berg. = Bergwesen.
Bibl. = Biblical.
Biol. = Biological.
Biom. = Biometry.
Bol. = Boletin, Boletim.
Boll. = Bollettino.
Bot. = Botanical.
Bull. = Bulletin.
Bur. = Bureau.
Centralbl. = Centralblatt.
Chem. = Chemical.
Coll. = Colliery, College.
Com. = Comitato, etc.
Comm. = Commissão, etc.
Conch. = Conchology, etc.
Congr. = Congress.
C.-R. = Comptes-rendus.
Denkschr. = Denkschriften.
Dir. = Direcção, etc.
Earthq. = Earthquake.
Engin. = Engineering, Engineers.
Erdk. = Erdkunde.
Erläut. = Erläuterungen.
F. C. = Field-Club.
Festschr. = Festschrift.
Földt. = Földtani.
Fom. = Fomento.
Foren. = Forening.
Förh. = Förhandlingar.
Geogn. = Geognostische.
Geogr. = Geographical.
Geol. = Geological, Geologist.
Gesch. = Geschichte.
Gesellsch. = Gesellschaft.
Handl. = Handlingar.
Helv. = Helvétique.
Hist. = History.
Hofmus. = Hofmuseum.
Hütt. = Hüttenwesen, etc.
Idrogr. = Idrografico.
Industr. = Industrial.
Inst. = Institute, Institution.
Izv. = Izvestia.
Jaarb. = Jaarboek.
Jahrb. = Jahrbuch.
Jahresb. = Jahresbericht.
Jahresh. = Jahreshefte.
Journ. = Journal.
K. = Königlich, Kaiserlich, etc.
Közl. = Közlöny.
Kryst. = Krystallographie.
Landesanst. = Landesanstalt.
Landesd. = Landesdurchforschung.
Lefnadst. = Lefnadsteckningar.
Lingust. = Lingustica.
Linn. = Linnean, etc.
Lit. = Literary.
Mag. = Magazine.
Malacol. = Malacological, etc.
Mater. = Materialien, Matériaux.
Math. = Mathematisch, etc.
M. E. = Mining Engineers.
Med. = Medical, etc.

Meddel. = Meddelanden, Meddelelser.
Mem. = Memoirs, etc.
Met. = Meteorological.
Metall. = Metallurgy.
Micr. = Microscopical.
Mijnw. = Mijnwezen.
Min. = Mineralogy, Mining, etc.
Minist. = Ministerio, etc.
Monogr. = Monographs.
Mus. = Museum, etc.
N. = Neues, New, etc.
Nac. = Nacional.
Nat. = National, Natural.
Naturf. = Naturforschend.
Naturgesch. = Naturgeschichte.
Naturh. = Naturhistorisch.
Naturw. = Naturwissenschaftlich.
Ned. O.I. = Nederlandsch Oost-Indië.
Notizbl. = Notizblatt.
Nouv. = Nouveau.
N.S. = Nova Scotia.
N.Z. = New Zealand.
Observ. = Observatoire, etc.
Öfvers. = Öfversigt.
Overs. = Oversigt.
Palæont. = Palæontographical, etc.
Petr. = Petrography, etc.
Phil. = Philosophical.
Philom. = Philomathique.
Photogr. = Photographical.
Phys. = Physical, etc.
Proc. = Proceedings.
Proc.-verb. = Procès-verbaux.
Prof. = Professional.
Progr. = Progress.
Publ. = Publications.
Q. = Quarterly.
R. = Royal, Real, Reale, etc.
Rass. = Rassegna.
Rec. = Records.
Reliq. = Reliquary.
Rendic. = Rendiconti.
Rep. = Report, etc.
Rev. = Revue.
Riv. = Rivista.
Rozpr. = Rozprawy.
S. A. = South Africa.
Samml. = Sammlungen.
Sav. = Savant, etc.
Schr. = Schriften.
Schw. = Schweizer, etc.
Sci. = Science, Scientific, etc.
Selsk. = Selskab.
Senckenb. = Senckenbergisch.
Serv. = Service, etc.
Sitz. = Sitzungsberichte.
Smiths. = Smithsonian.
Soc. = Society, etc.
Summ. = Summary.
Surv. = Survey.
Tosc. = Toscana.
Trans. = Transactions, etc.
Umiej. = Umiejetności.
Undersög. = Undersögelse.
Undersökn. = Undersökning.
Univ. = University, etc.
Ver. = Verein.
Verh. = Verhandlungen.
Vidensk. = Videnskab, etc.
Wetterau. = Wetterauisch.
Zap. = Zapiski.
Zeitschr. = Zeitschrift.
Zool. = Zoology, etc.

EXAMPLES OF ABBREVIATIONS OF THE NAMES OF SOCIETIES AND PUBLIC BODIES.

Acad. Cæsarea Leopoldino-Carolina. Academia Cæsarea Leopoldino-Carolina Naturæ Curiosorum. Halle.
Acad. Stanislas. Académie de Stanislas. Nancy.
Akad. Umiej. Krakow. Akademii Umiejetności. Cracow.
Allgem. schw. Gesellsch. Naturw. Allgemeine schweizerische Gesellschaft für die gesammten Naturwissenschaften. Geneva, Zürich, &c.
Am. Acad. Arts & Sci. American Academy of Arts & Sciences. Boston (Mass.).
Am. Geol. American Geologist. Minneapolis (Minn.).
Am. Inst. M. E. American Institute of Mining Engineers. New York.
Am. Mus. Nat. Hist. N.Y. American Museum of Natural History. New York.
Am. Nat. American Naturalist. Boston (Mass.).
Analyst. Analyst (Society of Public Analysts). London.
Ann. Géogr. Paris. Annales de Géographie. Paris.
Ann. géol. Pénins. balk., Belgrade. Annales géologiques de la Peninsule balkanique. Belgrade.
Ann. idrogr. Rome. Annali idrografici. Rome.
Ann. Sci. nat. (Zool. & Palé.). Annales des Sciences naturelles: Zoologie & Paléontologie. Paris.
Arch. f. Anthr. & Geol. Schleswig-Holsteins. Archiv für Anthropologie & Geologie Schleswig-Holsteins & der benachbarten Gebiete. Kiel.
Arch. néerland. Sci. Archives des Sciences exactes & naturelles, publiées par la Société hollandaise des Sciences à Haarlem. La Haye.
Arch. Sci. phys. et nat. Genève. Archives des Sciences physiques & naturelles. Geneva.

Assoc. franç. Av. Sci. Association française pour l'Avancement des Sciences. Paris.

Austral. Inst. M. E. Australasian Institute of Mining Engineers. Melbourne (Vict.).

Austral. Mus. Australian Museum. Sydney (N.S.W.).

Badisch. geol. Landesanst. Grossherzoglich badische geologische Landesanstalt. Heidelberg.

Beitr. Geophys. Leipzig. Beiträge zur Geophysik. Leipzig.

Beitr. Paläont. Oesterr.-Ung. Beiträge zur Paläontologie & Geologie Œsterreich-Ungarns & des Orients. Vienna.

Berg- hütt. Jahrb. Wien. Berg- & hüttenmännisches Jahrbuch der kaiserlich-königlichen Bergakademien zu Leoben & Přibram & der königlich-ungarischen Bergakademie zu Schemnitz. Vienna.

Berwicks. Nat. Club. Berwickshire Naturalists' Club. Alnwick.

Biol. Soc. Washington. Biological Society of Washington. Washington (D.C.).

Bristol Mus. Bristol Museum. Bristol.

Brit. Assoc. Waterworks Eng. British Association of Waterworks Engineers. London.

Canad. Rec. Sci. Canadian Record of Science. (Natural History Society of Montreal.) Montreal.

Carolina (N.) Geol. Surv., Econ. Papers. North Carolina Geological Survey: Economic Papers. Raleigh (N. Car.).

Carte géol. Suisse. Carte géologique de la Suisse. Berne.

Centralbl. f. Min. Centralblatt für Mineralogie, Geologie & Palæontologie. Stuttgart.

Chem. News. Chemical News. London.

Coll. Guard. Colliery Guardian. London.

Coll. Sci. Tokyo. College of Science, Imperial University. Tokyo.

Colo. Coll. Studies. Colorado College Studies. Colorado Springs (Colo.).

Com. geol. España. Comision del Mapa geológico de España. Madrid.

Com. géol. Russie. Comité géologique. St. Petersburg.

Comm. geogr. e geol. São Paulo. Commissão geographica & geologica de São Paulo. São Paulo (Brazil).

Comm. géol. Finlande. Commission géologique de Finlande. Helsingfors.

Congrès Soc. sav. Paris. Congrès des Sociétés savantes. Paris.

Connect. Acad. Connecticut Academy of Arts & Sciences. New Haven (Conn.).

Cotteswold Nat. F. C. Cotteswold Naturalists' Field-Club. Gloucester.

Dan. geol. Undersög. Danmarks geologiske Undersögelse. Copenhagen.

Dansk geol. Fören. Dansk geologisk Förening. Copenhagen.

Dep. Geol. Indiana. Department of Geology & Natural Resources of Indiana. Indianopolis (Ind.).

Dep. Lands, W. Austral. Department of Lands & Surveys. Perth (W. A.).

Dep. Mines, N.S. Department of Mines of Nova Scotia. Halifax (N.S.).

Dep. Mines, N.S.W. Department of Mines, New South Wales. Sydney (N.S.W.).

Deutsch. geol. Gesellsch. Deutsche geologische Gesellschaft. Berlin.

Deutsch. u. österreich. Alpenver. Deutscher & österreichischer Alpenverein. Munich.

Deutsch. wissensch. Ver. Santiago. Deutscher wissenschaftlicher Verein zu Santiago. Valparaiso.

Devon. Assoc. Devonshire Association for the Advancement of Science, Literature. & Art. Plymouth.

Dir. Serv. geol. Portugal. Direccão dos Serviços geologicos de Portugal. Lisbon.

Earthq. Comm. Tokyo. Earthquake Investigation-Committee. Tokyo.

Eclogæ Geol. Helv. Eclogæ Geologicæ Helvetiæ. Lausanne.

Essex Nat. Essex Naturalist. London.

Földt. Közl. Földtani Közlöny. [Geological Magazine.] Budapest.

Geogn. Jahresh., München. Geognostische Jahreshefte. Munich.

Geogr. Abh., Wien. Geographische Abhandlungen, Wien. Vienna.

Geogr. Anz. Geographischer Anzeiger. See *Peterm. Mitth.*

Geol. palæont. Abh. Jena. Geologische & palæontologische Abhandlungen. Jena.

Geol. Univ. Cal. Department of Geology, University of California. Berkeley (Cal.).

Gesellsch. f. Erdk., Berlin. Gesellschaft für Erdkunde. Berlin.

Ind. Acad. Sci. Indiana Academy of Science. Indianopolis (Ind.).

Ind. Eng. Indian Engineering. Calcutta.

Inst. Mines & Forests Brit. Guiana. Institute of Mines & Forests. Georgetown (Demerara).

Jaarb. Mijnw. Ned. O.-Ind. Jaarboek van het Mijnwezen in Nederlandsch Oost-Indië. Amsterdam.

Jahrb. f. Berg- u. Hüttenw. Sachsen. Jahrbuch für das Berg- & Hüttenwesen im Königreiche Sachsen. Freiberg.

Journ. Biom. Journal of Biometry. London.

Lunds Univ. Årssk. Lunds Universitets Årsskrift. Lund.

Malacol. Soc. Malacological Society. London.

Manch. Lit. Phil. Soc. Manchester Literary & Philosophical Society. Manchester.

Meddel. Grönland. Meddelelser om Grönland, udgivne af Commissionen for Ledelsen af de geologiske & geographiske Undersögelser i Grönland. Copenhagen.

Meddel. Indust. Finland. Meddelanden från Industristyrelsen i Finland. Helsingfors.

Min. petr. Mitth. Mineralogische & petrographische Mittheilungen. Vienna.

Naturw. Landesd. Böhmen. Naturwissenschaftliche Landesdurchforschung von Böhmen. Prague.

Oberrhein. geol. Ver. Oberrheinischer geologischer Verein. Stuttgart.

Peterm. Mitth. Petermann's Mittheilungen. Gotha.

Reliq. & Ill. Archæol. The Reliquary & Illustrated Archæologist. London.

Rev. Cienc., Lima. Revista de Ciencias. Lima.

Rev. crit. Paléozool. Revue critique de Paléozoologie. Paris.

Roy. Inst. G. B. Royal Institution of Great Britain.

Russ.-k. min. Gesellsch. Russisch-kaiserliche mineralogische Gesellschaft. St. Petersburg.

Sec. géol. Cab. S. M. St. Pétersb. Section géologique du Cabinet de Sa Majesté. St. Petersburg.

Senckenb. naturf. Gesellsch. Senckenbergische naturforschende Gesellschaft. Frankfurt-am-Main.

Soc. cient. 'Ant. Alzate.' Sociedad científica 'Antonio Alzate.' Mexico.

Soc. franç. Min. Société française de Minéralogie. Paris.

Soc. helv. Sci. nat. Société helvétique des Sciences naturelles. See *Allgem. schw. Gesellsch.*

Soc. philom. Verdun. Société philomathique de Verdun. Verdun.

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Arve R. (Savoy).—Haug, É., 4.

Asaphus.—Reed, F. R. C., 5.

Asbestos.—Aguilera, J. G., 1; Brugnatelli, L., 1; Ingall, E. D., 2; Pratt, J. H., 8; Primrose, A., 1.

Ashbourne & Buxton Ry.—Arnold-Bemrose, H. H., 1.

Ashes, fall of, Lower California.—Schmidt, C., 2.

——, St. Vincent, volcanic.—Klein, C., 1.

——. *See also* Dust.

Ashworth Moor (Lancs).—Baldwin, W., 1.

Asia.—Toula, F., 3; *see also* Siberia, &c.

—— (Central).—Friederichsen, M., 2; Hedin, S., 1; Wright, G. F., 1.

—— (E.).—Richthofen, Baron F. von, 1.

Asia Minor.—Achiardi, G. d', 5; Engelhardt, H., 1; Fuchs, T., 2; Penecke, K. A., 1; Schaffer, F. K., 1–3; Simmersbach, B., 1; Toula, F., 1; Yung, —, 1.

Asphalt, Albania.—Gounot, A. H., 1.

——, Argentina.—Ducloux, E., 1.

——, Palestine.—Blanckenhorn, M., 4.

——, Sicily.—Lotz, H., 2.

——, Trinidad.—Gordon, J. W., 1.

——, United States.—Eldridge, G. H., 1; Lakes, A., 15; Struthers, J., 7.

——. *See also* Petroleum, &c.

Aspidiscus.—Kossmat, F., 1.

Aspidoceras.—Burckhardt, C., 1.

Aspidopholas.—Dollfus, G. F., 6.

Asquins (Yonne).—Couppey de la Forest, M. le, 1.

Assam (Asia).—Oldham, R. S., 1.

Asschian, Belgium.—Forir, H.

Assilina.—Prever, P., 1.

Astarte.—Bistram, A. von, 1; Dainelli, G., 3; Yakovlev, N., 4.

Asterostemma.—Scott, W. B., 1.

Asthenotoma.—Cossmann, M., 2.

Astrakanite.—Jæger, F. M., 1; *see also* Blödite.

Astrarœa.—Felix, J., 4.

Astrocœnia.—Felix, J., 2; Osasco, E., 1.

Astroni crater (Campania).—Lorenzo, G. de, 6.

Ataprus.—Chartron, C., 1.

Atchinsk (Siberia).—Bordeaux, A., 1.

Athol (Mass.).—Palache, C., 1.

Atlantic Ocean.—Choffat, P., 1; Lohmann, H., 1.

Atlantis problem.—Scharff, R. F., 1.

Atlas Mts. (Algeria, &c.).—Fischer, T., 1; Ritter, É., 1.

Atlin (B. C.).—Gwillim, J. C., 1.

Atolls, Pacific.—Agassiz, A., 2.

Atracites.—Airaghi, C., 1.

Aube, R. (France).—Lemoine, P., 1.

Aubusson (Creuse).—Michel-Lévy, A., 1.

Aucella.—Etheridge, R., Fil., 2.

Augite.—Milch, L., 2; Weinschenk, E., 3; *see also* Pyroxene.

Augitic porphyry, Venetia.—Keyserling, H. von, 1.

Augustusberg (Saxony).—Zimmermann, R., 1.

Auk, Tertiary.—Lucas, F. A., 7.

Aulacothyris.—Bittner, A., 1.

Aulopsammia.—Felix, J., 2.

Ault (Somme).—Bardou, —., 1.

Aus Lake (Styria).—Hœrnes, R., 5.

Austin (Texas).—Shattuck, G. B., 1.

Australasia.—Toula, F., 3.

Australia (S.).—Brown, H. Y. L., 3 & 4; Chewings, C., 1; Coghlan, T. A., 1; Cumming, A. C., 1; Etheridge, R., Fil., 1 & 2; Greenway, T. C., 1; Howchin, W., 1.

—— (——), N. Terr.—Brown, H. Y. L., 1 & 2.

—— (W.).—Coghlan, T. A., 1; King, H. S., 1; Krusch, P., 1; Maitland, A. G., 1; Spencer, L. J., 1.

Australian Continent.—Thompson, J. P., 1.

Austria.—Cole, G. A. J., 8; Geyer, G., 1; Meissner, —., 1; Mojsisovics, E. von, 1 & 3.

—— (Lower).—Abel, O., 3; Fuchs, T., 1, 5, & 6; Toula, F., 2.

Auvergne (France).—Brunhes, B., 2; Montlosier, — de, 1.

Avalanches.—Mougin, P., 1; Schardt, H., 4.

AVELINE, W. T. *See Obit.*, Anon., 2.

Aveyron (France).—Fournier, E., 1.

Avicula.—Drevermann, F., 2; Kayser, E., 1; Maurer, F., 1.

Aviculopecten.—Beede, J. W., 1; Bittner, A., 1; Drevermann, F., 2; Gortani, M., 3; Hind, W., 4; Yakovlev, N., 4.

Avoltri, Forni (Venetia).—Gortani, M., 1–3.

Axinite.—Ford, W. E., 2.

Ayrshire (Scotland).—Gunn, W., 1; Reed, F. R. C., 5; Smith, J., 1; Wright, J., 1.

Azores (Atlantic).—Choffat, P., 1; Howarth, O. A., 1.

Babingtonite.—Palache, C., 1.

Bača Valley (Tyrol).—Kossmat, F., 2.

Bachergebirge (Styria).—Medanich, G., 1.

Bács Comitat (Hungary).—Koch, A., 3.

Bactrites.—Smith, J. P., 1.

Baden (Germany).—Futterer, K., 1; Keidel, H., 1; Schalch, F., 1–3; Steinmann, G., 2.

Baëna.—Osborn, H. F., 4.

Bagnacavallo (Emilia).—Corti, B., 1.

Bagnères-de-Luchon (Haute-Garonne).—Garrigou, F., 1.

Bagnorea (Latium).—Meli, R., 1.
Bagshot Beds, Berkshire.—Blake, J. H., 1.
—— ——, Dorset.—Hudleston, W. H., 1; Woodward, H. B., 10.
—— ——, Surrey.—Coomáraswámy, A. K., 3; Monckton, H. W., 3.
Baiera.—Mœller, H., 1; Seward, A. C., 2.
Baikal, Lake (Siberia).—Bagashov, I., 1.
Bajocian Denudation, Gloucestershire.—Richardson, L., 1.
Bakerite.—Giles, W. B., 1.
Bakewellia.—Yakovlev, N., 4.
Balanophyllia.—Felix, J., 3.
Balantium.—Fuchs, T., 4.
Balbronn (Alsace-Lorraine).—Steuer, A., 1.
Balkan, Trans-, Railway.—Vinassa de Regny, P., 2.
Balkash, Lake (Russian Turkestan).—Levat, E. D., 1.
Baltic.—Geinitz, E., 2 & 3; Ussing, N. V., 1; Wiman, C., 1.
Baluchistan (India).—Holland, T. H., 3; Nœtling, F., 1.
Bamberg (Bavaria).—Barnes, J., 1.
Banaba I. (Pacific).—Reed, F. R. C., 3.
Bangalore (Mysore).—Jayaram, B., 1; Primrose, A., 1.
Baoussé-Roussé (Alpes-Maritimes).—Gaudry, A., 1.
Baptanodon.—Gilmore, C. W., 1; Knight, W. C., 3.
Baptornis.—Lucas, F. A., 8.
Baraba Steppe (Tomsk Gov.).—Tanfiliev, G. I., 1.
Barbados (W.I.).—Coppock, J. B., 1; Powell, H., 2; Spencer, J. W., 3.
Barcelona (Catalonia).—Vidal, L. M., 1.
'Barisal guns.'—Alippi, T., 1; Botti, U., 1.
Barnaul (Tomsk Gov.).—Tanfiliev, G. I., 1.
Barnea.—Dollfus, G. F., 6.
Barremian, Provence.—Pellat, E., 1.
Barroisiceras.—Shattuck, G. B., 1.
Barrule granite-quarries, I. of Man.—Elsden, J. V., 2.
Barton, Further (Gloucester).—Hooker, C. P., 1.
Bartonian, Sardinia.—Dainelli, G., 3.
Barytes.—Buecking, H., 1; Delkeskamp, R., 1; Everding, H., 1; Feurer, J., 1; Pratt, J. H., 9; Rzehak, A., 1; Strandmark, J. E., 1.
Basalt, Abyssinia.—Raisin, C. A., 1.
——, Alsace.—Buecking, H., 2; Linck, G., 1.
——, Antarctic.—Prior, G. T., 4.
——, Arctic, Canada.—Hanbury, D. T., 1.
——, Caernarvon.—Cope, T. H., 1.
——, Derbyshire.—Moore, S., 1.
——, Greece.—Hilber, V., 2.
——, Hesse.—Klemm, G., 2; Schultz, W., 1.
——, Iceland.—Pjetursson, H., 1.
Basalt, Newfoundland.—Daly, R. A., 1.
——, New South Wales.—Andrews, E. C., 2; Card, G. W., 3; Mingaye, J. C. H., 3.
——, Oregon.—Diller, J. S., 3.
——, Scania.—Kjellén, R., 3.
——, Teesdale.—I'Anson, J. C., 1.
Basel (Switzerland).—Greppin, E., 1.
Basilicata (Italy).—Lorenzo, G. de, 2 & 3.
Basilisaurus.—Lucas, F. A., 4.
Basin-Range Structure, Death Valley (Cal.).—Campbell, R., 2.
Basins, Swiss closed.—Lugeon, M., 6.
Bass Rock (Firth of Forth).—Goodchild, J. G., 1.
Basterotia.—Dollfus, G. F., 6.
Bath Furnace (Ky.).—Miller, A. M., 1; Ward, H. A., 4.
Bathurst Inlet (Arctic Canada).—Hanbury, D. T., 1.
Batrachia, Cretaceous.—Osborn, H. F., 4.
——, Tertiary.—Stefano, G. de, 1.
Batrachosuchus.—Broom, R., 3.
Baudour (Hainault).—Cornet, J., 3.
Baumhauerite.—Solly, R. H., 1 & 2.
Bauxite (Italy).—Achiardi, G. d', 2; Novarese, V., 3.
——, occurrence of.—Henatsch, W., 1.
——, United States.—Struthers, J., 1.
Bavaria (Germany).—Barnes, J., 1; Branco, W., 1 & 2; Buecking, H., 4; Duell, E., 1; Henkel, L., 3; Knebel, W. von, 1 & 2; Kohler, E., 1; Launay, L. de, 3; Pfaff, F. W., 2; Regelmann, C., 1; Reindl, J., 1; Ries, A., 1; Schmierer, T., 1; Weinschenk, E., 8.
Baveno (Piedmont).—Artini, E., 1.
Bayonne (Basses-Pyrénées).—Bertrand, L., 1.
Beaches, Yorkshire, infra-Glacial fauna in.—Lamplugh, G. W., 3; *see also* Raised Beaches, Shingle, &c.
Beaconsfield (Tasmania).—Twelvetrees, W. H., 4.
Beania.—Nathorst, A. G., 2.
Bear I. (Arctic).—Nathorst, A. G., 1.
Bear-Lodge Mt. (Wy.).—Loomis, F. B., 1.
Beaufort West (Cape Colony).—Rogers, A. W., 5.
Beaumont (Texas).—Lucas, A. F., 1; Stœk, H. H., 1.
Beauval (Aisne).—Briquet, A., 2.
Beavers, Tertiary.—Matthew, W. D., 4.
Bedfordshire.—Home, H., 1; Hopkinson, J., 1; Lamplugh, G. W., 7.
Beer Harbour (Devon).—Rowe, A. W., 2.
Beinn-Ledi Group.—Cunningham-Craig, E. H., 1.
Belbites.—Pampaloni, L., 1.
Belemnites.—Etheridge, R., Fil., 2; Lamplugh, G. W., 1; Loriol, P. de, 1; Uhlig, V., 1.

Belfast (Ireland).—Bennett, F. J., 1; Cole, G. A. J., 10; Præger, R. L., 2.
Belgian coast water-supply.—Andrimont, R. d', 1.
'Belgica,' voyage of the.—Arçtowski, H., 1 & 4; Thoulet, J., 1.
Belgium.—Claes, —, 1; Dobers, —, 1; Forir, H., 1; Harzé, E., 1 & 2; Lambert, J., 3; Leriche, M., 3; Malaise, C., 1 & 2; Moulan, T. C., 2; Mourlon, M., 1; Rutot, A., 1, 2, 4, 5; Seward, A. C., 5; Walkhoff, O., 1; *see also* Antwerp, Campine, Coalfields, &c.
Belledonne massif (Dauphiné).—Termier, P., 3.
Bellerophon.—Walther, K., 1.
Bellevue (Idaho).—Lakes, A., 2.
Bellinurus.—Baldwin, W., 2.
Bellongue (Ariège).—Caralp, J., 1.
Belly River (Canada).—Hatcher, J. B., 1.
—— —— Beds.—Hatcher, J. B., 4; Osborn, H. F., 4.
Belonostomus.—Leriche, M., 1.
Ben Cruachan (Argyll).—Kynaston, H., 1.
Bena-(de)-Padru mines (Sardinia).—Lovisato, D., 2.
Bendigo (Victoria).—Cundy, W. H., 1.
Bengal (India).—Adamson, T., 1; Grover, F., 1.
Beni-Toufout massif (Algeria).—Termier, P., 4.
BENNIE, J. *See Obit.*, Horne, J., 2.
Benovac (Dalmatia).—Schubert, R. J., 2.
Benton Shales, Kansas.—Lindgren, W., 2.
Berberis.—Knowlton, F. H., 1.
Berea Grit Oil-Sand, Ohio.—Griswold, W. T., 1.
Beresovka R. (Yakutsk).—Tolmashev, I. P., 1.
Bergamo (Lombardy).—Porro, C., 1; Tacconi, E., 2.
Bergen (Norway).—Monckton, H. W., 2.
Bergholt. *See* East Bergholt.
Berkshire.—Blake, J. H., 1.
Berkshire Co. (Mass.).—Taylor, F. B., 1.
Bermondsey (London).—Kennard, A. S., 2; Warren, S. H., 1.
Bermuda Is. (Atlantic).—Verrill, A. E., 1 & 2.
Berne (Switzerland).—Gerber, E., 1.
Bernissart (Hainault).—Bertrand, C. E., 1; Pauw, L. F. de, 1 & 2.
Beroun (Bohemia).—Slavik, F., 1.
Berry (France).—Péron, A., 1.
Berthierite.—Loczka, J., 1.
Berwickshire (Scotland).—Goodchild, J. G., 2.
Beryl.—Bertolio, S., 1; Pettard, W. F., 1.
Bessarabia (Russia).—Michalski, A., 1.
Betchat (Ariège).—Carez, L., 4.
Bethanga (Victoria).—Jenkins, H. C., 1.
Betula.—Engelhardt, H., 1; Knowlton, F. H., 1.
Beyrichia.—Weller, S., 2.
Biarritz (Basses-Pyrénées).—Bertrand, L., 1; Carez, L., 6; Douvillé, H., 9; Meyer-Eymar, C., 1; Seunes, J., 1; Stuart-Menteath, P. W., 1.
'Bibliographia geologica.'—Mourlon, M., 3; Van den Broeck, E., 14.
Bicia.—Walcott, C. D., 3.
Bidart (Basses-Pyrénées).—Bertrand, L., 1; Carez, L., 3.
Bielaya R. & Bieloretsk (Ufa Gov.).—Kovalev, P., 1.
Bifarina.—Liebus, A., 2.
Bigenerina.—Gortani, M., 3.
Biggenden, Mt. (Queensl.).—Ball, L. C., 2.
Biggleswade (Beds).—Home, H., 1.
Bighorn Mts. (Wy.).—Salisbury, R. D., 1.
Bilbao (Vizcaya).—Adams, F. D., 1.
Binn Valley (Valais).—Baumhauer, H., 2 & 4; Lewis, W. J., 1.; Solly, R. H., 1 & 2.
Biotite-diabase, Saxony.—Beck, R., 1.
Biradiolites.—Franchis, F. de, 1.
Birds, Cretaceous.—Lucas, F. A., 8.
——, evolution of.—Lydekker, R., 2.
——, Quaternary.—Grandidier, G., 2.
——, Tertiary.—Ihering, H. von, 1; Lucas, F. A., 7; Regàlia, E., 1.
Birefringence, mineral.—Miers, H. A., 2.
Bislich (Rh.-Prussia).—Mueller, G., 1.
Bismuth.—Ball, L. C., 2; Rimatori, C., 1; Struthers, J., 6.
Bitter Lakes (Yenisei Gov.).—Ludwig, F., 1; Tolmashev, I. P., 1.
Bitterfeld (Saxony).—Riedel, O., 1.
Bitumen, United States.—Eldridge, G. H., 1; *see also* Asphalt, &c.
Black Hills (S. Dakota).—Irving, J. D., 1.
——, West side (Wy.).—Loomis, F. B., 1.
Black-Reef Series, Orange-River Colony.—Hatch, F. H., 3.
Black-Sea Gov. (Russia).—Nikitin, S., 1.
Blanc, Mont (Savoy).—Forel, F. A., 1.
Blansko (Moravia).—Bock, H., 1.
Blanzy (Saône-et-Loire).—Delafond, F., 1.
Blastoidea, Devonian.—Hambach, G., 1.
Bleiberg (Carinthia).—Hœfer, H., 2.
BLEICHER, G. *See Obit.*, Fliche, P., 2.
Block Mts. (N. Mex.).—Johnson, D. W., 1.
Blocks, exotic, Hundés.—Krafft, A. von, 1.
Blödite.—Jæger, F. M., 1; Van't Hoff, J. H., 3 & 5.
Bloomsbury (London).—Bennett, F. J., 1.
Blue-Black Slates, Cornwall.—Parkinson, J., 1.
Blue Mts. (Oregon).—Lindgren, W., 1.
Bochianites.—Sarasin, C., 2.
Bodaibo R. (Siberia).—Obrutchev, V., 1.
Bodenmais (Bavaria).—Weinschenk, E., 8.

Bogoslov volcanoes, Aleutian Is.—Merriam, C. H., 1.
Bogs, Sweden.—Sjœgren, H., 1; *see also* Peat, &c.
Bohemia.—Anon., 19; Bauer, F., 1; Becke, F., 1; Dathe, E., 1; Graber, H. V., 1; Hanamann, J., 1; Hinterlechner, K., 1 & 2; Jahn, J. J., 1; Liebus, A., 1; Meissner, —., 1; Mojsisovics, E. von, 3; Pelikan, A., 1; Petrascheck, W., 1; Počta, P., 1; Slavik, F., 1; Tietze, E., 1; Weithofer, K. A., 1; Želízko, J. V., 1.
Bois-Bernard (Pas-de-Calais).—Barrois, C., 1.
Bolderian, Belgium.—Forir, H., 1.
Bole.—Surgunov, N., 1.
Boletia.—Loriol, P. de., 2.
'BOLITHO' medal.—Foster, C. Le N., 4.
Bolivia (S. Am.).—Evans, J. W., 1–3; Nordenskjœld, E., 1–3.
Bologna (Emilia).—Flores, E., 2.
'Bolson' Plains (N. Mex.).—Keyes, C. R., 4.
BOMBICCI, L. *See Obit.*, Neviani, A., 1.
Bone-bed, Concud.—Woodward, A. S., 4.
——-earth, Yverdon.—Stehlin, H. G., 2.
'Boniti,' *see* 'Barisal Guns,' 'Mistpoeffers,' &c.
Bonn (Rh.-Prussia).—Walkhoff, O., 1.
Bonneville (Savoy).—Girardin, P., 1.
Boom (Antwerp).—Delheid, E., 1.
Boothite.—Schaller, W. T., 1.
Borax, California, &c.—Campbell, M. R., 1 & 2; Maguire, —., 1; Struthers, J., 12.
Bordeu spring (Haute-Garonne).—Moissan, H., 1.
Boring-mollusca, Ayrshire Hills.—Smith, J., 1.
Borings, Alsace-Lorraine.—Andreæ, A., 4.
——, Australia (W.).—Maitland, A. G., 2.
——, Belgium.—Brouwer, M. de, 1; Fourmarier, P., 2; Lapparent, A. de, 5; Lohest, M., 1; Stainier, X., 1; Van Ertborn, O., 3 & 8.
——, Durham & Northumberland.—Lebour, G. A., 1.
——, Germany.—Mueller, G., 1; Ochsenius, C., 1.
——, Japan.—Norman, F. J., 1.
——, Lancashire.—Dickson, J., 2.
——, Lincolnshire.—Preston, H., 1.
——, Northants.—Thompson, B., 1.
——, Nova Scotia.—Gilpin, E., Jun., 1 & 2; Weatherbe, D'A., 1.
——, Pas-de-Calais.—Léon, —., 1.
——, Russia.—Sinzov, I., 1.
——, Suffolk.—Whitaker, W., 1.
——, United States.—Boultbee, J. W., 1; Russell, I. C., 4.
——, Yorkshire.—Simpson, W., 1.
——. *See also* Artesian, &c.
Borkholm (I. of Gotland).—Wiman, C., 1.
Bormio (Lombardy).—Hammar, W., 1.
Borneo (E. I.).—Fliegel, G., 1; Molengraaff, G. A. F., 1; Newton, R. B., 1; Truscott, S. J., 1.
Bornholm (Baltic).—Mœller, H., 1.
Bornite.—Harrington, B. J., 3.
Borrowdale (Cumberland).—Walker, E. E., 1.
Boryslav (Galicia).—Galloway, W., 1.
Bos.—Hepburn, D., 1; Rutot, A., 5; Sheppard, T., 3.
Boscampo (Tyrol).—Ippen, J. A., 5.
Boskovitz (Moravia).—Bock, H., 1.
Bosnia.—Bittner, A., 1.
Bosquet (Algeria).—Ficheur, E., 1.
Botesberg (Hungary).—Zimányi, K., 1.
Bothriodon.—Rush, L. P., 1.
Bothrodendron.—Nathorst, A. G., 1 Seward, A. C., 2.
Botryogen.—Eakle, A. S., 1.
Bottendorf (Hesse).—Wuest, E., 2.
Bottino (Tuscany).—Achiardi, G. d', 4.
Botzen (Tyrol).—Wolff, F. von, 1.
Boulder-Clay, Ayrshire.—Wright, J., 1.
——, marine fauna of Irish, &c.—Wright, J., 1–3.
——, Iceland.—Pjetursson, H., 1.
——, Norfolk.—Elsden, J. V., 5.
——, Triassic, Nova Scotia.—Haycock, E., 1.
Boulders, Hull, striated.—Sheppard, T., 2.
——, Permo-Carboniferous, Victoria (Austral.).—Thiele, E. O., 1.
——, Sylt drift.—Martin, J., 1; Petersen, J., 1.
——, Tennessee erratic.—McCallie, S. W.; 1.
——. *See also* Glacial deposits, Erratic, &c.
Boulge (Suffolk).—Whitaker, W., 1.
Boulonnais (France).—Barrois, C., 3; Rigaux, E., 1; Zeiller, R., 3; *see also* Calais, Pas-de-, &c.
Bourges (Cher).—Péron, A., 1.
Bournonite.—Lovisato, D., 1; Pettard, W. F., 1.
Boussens (Haute-Garonne).—Carez, L., 4.
Bowen district (Queensl.).—Cameron, W. E., 2.
Brabant.—Elsden, J. V., 4; Lorié, J., 1; Van Ertborn, O., 1; Simoëns, G., 5.
Bracciano (Romagna).—Verri, A., 5.
Brachauchenius.—Williston, S. W., 4.
Brachiopoda, Cambrian.—Matthew, G. F., 1; Walcott, C. D., 3 & 4; Weller, S., 2.
——, Carboniferous.—Beede, J. W., 2; Nœtling, F., 2; Parkinson, H., 1; Tchernyshev, T., 1.
——, Cretaceous.—Antula, J., 1; Etheridge, R., Fil., 2; Kossmat, F., 1; Lamplugh, G. W., 7.
——, Devonian.—Drevermann, F., 2; Lotz, H., 1; Œhlert, D. P., 1; Walther, K., 1; Weller, S., 1.
——, Ordovician.—Nickles, J. M., 1.
——, recent and fossil.—Schuchert, C., 1.

Brachiopoda, Silurian.—Chapman, F., 1; Cumings, E. R., 1; Weller, S., 2.
——, Tertiary.—Gortani, M., 3.
——, Triassic.—Bittner, A., 1.; Frech, F., 1.
Brachiosaurus.—Biggs, E. S., 1.
Brachymetopus. — Drevermann, F., 2; Reed, F. R. C., 2.
Brachyodus.—Depéret, C., 3.
Brachyphyllia.—Felix, J., 2.
Brachyphyllum.—Mœller, H., 1.
Bray Hd. (Co. Dublin).—Lamplugh, G. W., 6.
Brazeau Glacier, Canad. Rocky Mts.—Coleman, A. P., 3.
Brazil (S. Am.).—Angelis d'Ossat, G. de, 2; Branner, J. C., 1; Hussak, E., 2; Scott, H. K., 1; Verrill, A. E., 1; Woodward, A. S., 7.
Breccias, Bolivia.—Evans, J. W., 3.
——, St. Helen's I.—Nolan, A. W., 1.
——, volcanic.—Branco, W., 1 & 2.
Bredon Hill (Worcester).—Buckman, S. S., 1; Hull, E., 1.
Breislakite.—Weinschenk, E., 5.
Bresse (Ain).—Lamothe, R. de, 2.
Brest (Britanny).—Barrois, C., 2 & 6.
Brettenham Park (Suffolk).—Whitaker, W., 1.
Breusch R. (Alsace-Lorraine).—Benecke, E. W., 4; Jækel, O., 1.
Briançonnais (France). — Kilian, W., 6 & 7; Termier, P., 3.
Bridlington Quay (Yorks).—Lamplugh, G. W., 3.
Bright (S. Austral.).—Brown, H. Y. L., 3.
Brisbane R. (Queensl.).—Jackson, C. F. V., 1.
Brissopsis.—Gauthier, V., 1.
Bristol.—Morgan, C. L., 1; Short, A. R., 1.
Britanny (France).—Barrois, C., 2, 5 & 6; Bézier, T., 1; Bigot, A., 2 & 4; Kerforne, F., 1–5; Lebesconte, P., 1; Lechartier, G., 1; Montessus de Ballore, F. de, 1.
British Association, Southport.—Monckton, H. W., 2; Seward, A. C., 3; Watts, W. W., 2.
British Columbia (Canada).—Daly, R. A., 3; Gwillim, J. C., 1; Johnson, P., 1; Prior, E. G., 1 & 2.
British E. Africa.—Walker, E. E., 2.
British geology.—Small, E. W., 1.
British Guiana.—Hargreaves, T. S., 1; Harrison, J. B., 1 & 2.
British Museum (Natural History).—Prior, G. T., 3.
Broca R. (Rumania).—Cadere, D., 1.
Brockrams, Eden Valley.—Kendall, P. F., 1.
Bröggeria.—Walcott, C. D., 4.
Bröggerite.—Barker, G. F., 1.
Broken Hill (N.S.W.).—Beaumont, E. K., 1; Warren, J., 1.
Brooksella.—Kinkelin, F., 3.
Brookville (Queensl.).—Cameron, W. E., 3.
Brouzet (Gard).—Pellat, E., 1.
Brown, J. A. *See Obit.*, Anon., 3; Woodward, B. B., 1.
Brown coal, Bohemia.—Anon., 19.
—— ——, Victoria (Austral.).—Kitson, A. E., 1.
Bruguieria.—Prever, P., 1.
Brunite.—Schalch, F., 1.
Brünn (Moravia).—Bock, H., 1.
Brusau (Moravia).—Tietze, E., 1.
Brushite.—Schulten, A. de, 1.
Brunstatt (Alsace-Lorraine).—Fœrster, B., 3.
Brunswick (Germany). — Wollemann, A., 2.
Brussels (Belgium).—Cuvelier, E., 1; Leriche, M., 2; Putzeys, E., 1; Rutot, A., 2.
Brüx (Bohemia).—Anon., 19.
Bryozoa, Carboniferous.—Barnes, J., 2.
——, Cretaceous.—Canu, F., 2.
——, Devonian.—Weller, S., 2.
——, Silurian.—Chapman, F., 1; Weller, S., 2.
——, Tertiary.—Canu, F., 1; Maplestone, C. M., 1.
Buchiola.—Walther, K., 1.
Buckinghamshire.—Howe, J. A., 1.
Buco del Piombo, Como (Lombardy).—Flores, E., 1.
Buda Limestone, Texas.—Shattuck, G. B., 1.
Budakesz.—Tuzson, J., 1.
Budapest (Hungary).—Schafarzik, F., 4; Treitz, P., 2.
Budleigh Salterton (Devon).—Bonney, T. G., 7; Hunt, A. R., 5; Shrubsole, O. A., 1.
Budmania.—Andrussov, N., 1; Gorjanovič-Kramberger, K., 2.
Budua (Dalmatia).—Tietze, E., 4.
Buenos Aires (Argentina).—Ameghino, F., 2.
Building-stones, Canada.—Ingall, E. D., 2.
——, exhibition of.—Elsden, J. V., 6 & 7.
——, Irish.—Anon., 38; Cole, G. A. J., 1; Elsden, J. V., 7.
——, United States.—Barbour, E. H., 1; Coons, A. T., 1; Shedd, S., 1.
——, weathering in London.—Anon., 33.
Bukhara (Turkestan).—Levat, E. D., 1 & 2.
Bukharest (Rumania).—Uroshev, S., 1.
Bukowina (Galicia).—Volz, W., 1.
Bulawayo (Rhodesia).—Mennell, F. P., 1; Molyneux, A. J. C., 1.
Bulimorpha & *Bumastus*.—Weller, S., 2.
Bunælurus.—Matthew, W. D., 2.
Bungay (Suffolk).—Whitaker, W., 1.
Bunzlau (Silesia).—Guerich, G., 1.
Burgundy (France). — Babinet, —, 1; Delafond, F., 1.
Burma.—Holland, T. H., 3.
Burnett R. (Queensl.).—Jackson, C. F. V., 1.
Burrows, Rocky Mt. quartzite with.—Bonney, T. G., 2 & 6.
Bute (Scotland).—Gunn, W., 1.
Buthotrephis.—White, D., 2.
Buxton (Derby).—Dawkins, W. B., 1.

Buxton & Ashbourne Ry.—Arnold-Bemrose, H. H., 1.
Bythocypris.—Weller, S., 2.

Cadiz (Ohio).—Griswold, W. T., 1.
Caermarthenshire.—Strahan, A., 3.
Caernarvonshire.—Cope, T. H., 1; Fearnsides, W. G., 1; Jehu, T. J., 1.
Calabria (Italy).—Lojacono, M., 1; Stefano, G. de, 4.
Calais, Pas-de- (France).—Barrois, C., 1; Desailly, —, 1; Deville, Ste.-Cl., 1; Févre, —, 1; Gosselet, J., 5; Léon, —, 1; *see also* Boulonnais, &c.
Calamine.—Samoïlov, J., 2.
Calamopitys.—Scott, D. H., 1.
Calaverite.—Fedorov, E. von, 5; Smith, G. F. H., 3.
Calcanthite.—Schaller, W. T., 1.
Calcareous concretions, Creechbarrow.—Hudleston, W. H., 1.
—— nodules, Tasmania.—Hogg, E. G., 1.
—— pan, Arizona.—Blake, W. P., 1.
—— sandstone, Bamberg.—Barnes, J., 1.
Calceola.—Benecke, E. W., 4.
Calcite.—Bowman, A. L., 2; Delkeskamp, R., 1; Gœssl, J., 1; Goldschmidt, V., 3; Hulyák, V., 1; Meigen, W., 1 & 2; Panebianco, G., 1; Rinne, F., 2; Tschermak, G., 1.
Calcrete, use of term.—Bonney, T. G., 5.
Calcretes, Gulf of Manaar.—Lomas, J., 3 & 6.
'Caliche.'—Blake, W. P., 1.
California (U.S.A.).—Campbell, M. R., 1 & 2; Diller, J. S., 1 & 2; Eldridge, G. H., 1; Hershey, O. H., 1–5; Lakes, A., 10, 12, 13; Lawson, A. C., 1 & 2; Lucas, F. A., 7; Maguire, —, 1; Manson, M., 2; Merriam, J. C., 1; Pratt, J. H., 1; Schaller, W. T., 1; Sinclair, W. J., 1; Smith, G. O., 1; Turner, H. W., 1; Yunge, G., 1.
Calimani massif (Rumania).—Butureanŭ, V. C., 1.
Callipteridium.—Seward, A. C., 2.
Calloneghe (Venetia).—Longhi, P., 1.
Callopora.—Weller, S., 2.
Callovian, Isère.—Kilian, W., 2.
Calvados (Normandy).—Bigot, A., 5.
Cam R. (Cambridge).—Clayton, E. G., 1.
Camarella.—Weller, S., 2.
Camarocrinus.—Schuchert, C., 5.
Camarophoria.—Tchernyshev, T., 1.
Cambewarra Mt. (N.S.W.).—Card, G. W., 3.
Camborne (Cornwall).—Hill, J. B., 1.
Cambrai (Nord).—Dollé, L., 1.
Cambrian, Bohemia.—Hinterlechner, K., 1.
——, Caernarvon.—Fearnsides, W. G., 1.
——, Canada.—Matthew, G. F., 1.
——, China.—Monke, H., 1.
——, Gotland.—Wiman, C., 2; Winkler, C., 1.
——, Nova Scotia.—Ami, H. M., 4; Poole, H. S., 2.
Cambrian, Saxony.—Dalmer, K., 2.
——, United States.—Dale, T. N., 1; Weller, S., 2.
Cambridgeshire.—Clayton, E. G., 1; Reed, F. R. C., 4.
Camelus.—Stromer, E. von, 5.
Camerino (Marches, Italy).—Mariani, M., 1.
Cameroons (Africa).—Macco, A., 1; Oppenheim, P., 1.
Camiers (Pas-de-Calais).—Gosselet, J., 5.
Campagna Romana (Italy).—Angelis d'Ossat, G. de, 6; Fantappié, L., 1; Sabatini, V., 2.
Campania (Italy).—Anon., 25; Flores, E., 2; Guenther, R. T., 1; Lorenzo, G. de, 1 & 3–6; Parona, C. F., 1; Sabatini, V., 1.
Campanile.—Cossmann, M., 1.
Campeloma.—Stanton, T. W., 2.
Campine (Belgium).—Fourmarier, P., 2; Harzé, E., 1 & 2; Kersten, J., 2; Lapparent, A. de, 4 & 5; Lejeune de Schiervel, C., 1; Lohest, M., 1; Simoëns, G., 4–8; Stainier, X., 2 & 3; Van Ertborn, O., 3 & 8.
Campodus.—Eastman, C. R., 1.
Camptonite, Rumania.—Cadere, D., 1.
——, Tyrol.—Ippen, J. A., 1.
Canada.—Ami, H. M., 1–5 & 8; Bell, R., 1; Coleman, A. P., 2; Dawson, G. M., 1; Harrington, B. J., 2; Hoffmann, G. C., 2; Ingall, E. D., 2; Jones, T. R., 1; Mabery, C. F., 1; Matthew, G. F., 1; Osann, A., 1; Penhallow, D. P., 1 & 2; Pratt, J. H., 6; Struthers, J., 13; Wilson, A. W. G., 1.
—— (Arctic).—Hanbury, D. T., 1.
—— (N.W. Terr.).—Bell, J. M., 1; Lakes, A., 11; Miers, H. A., 4; Osborn, H. F., 4.
——. *See also* Alberta, &c.
Canada-balsam in thin rock-sections.—Benedicks, C., 1.
Canadian Grand Trunk Pacific Ry.—Ami, H. M., 8.
—— Pacific Ry., landslips.—Brewer, W. M., 2; Lakes, A., 11.
—— Rocky Mts.—Bonney, T. G., 2, 6, 11; Collie, J. N., 1; Coleman, A. P., 3.
Canal No. III., Budapest.—Schafarzik, F., 4.
Canary Is.—Tacquin, A., 1.
Canidæ, Tertiary.—Matthew, W. D., 3; Wortman, J. L., 1.
Canis.—Ameghino, F., 2.
Cañon, Colorado Grand.—Davis, W. M., 1.
Canonbie (Dumfries).—Kidston, R., 2.
Cantioscyllium.—Leriche, M., 1.
Canty Bay (Haddington).—Goodchild, J. G., 1.
Cape Colony (S. Africa).—Anon., 36; Corstorphine, G. S., 1; Mennell, F. P., 2; Rogers, A. W., 1–6; Sawyer, A. R., 2; Schwarz, E. H. L., 1 & 2; Sutton, J. R., 1.
Cape Town (Cape Colony).—Anon., 36.

Cape York Peninsula (Queensl.).—Jackson, C. F. V., 3.
Cappuccini (Tuscany).—Zambonini, F., 4.
Capreolus.—Venukov, P. I., 1.
Capri, I. of (Italy).—Bellini, R., 1.
Carabodites.—Pampaloni, L., 1.
Carabus.—Lapouge, G. de, 1.
Caracoles (Chili).—Labastie, F., 1.
Caranx.—Gorjanović-Kramberger, K., 1.
Carbonaceous bed, Arona porphyry.—Taramelli, T., 5.
Carbonates, mineral. — Meigen, W., 1 & 2.
Carboniferous, Alabama.—Smith, E. A., 1.
——, Alsace.—Tornquist, A., 1.
——, Argentina.—Clayton, E. G., 2.
——, Belgium.—Delépine, G., 2; Destinez, P., 1; Stainier, X., 4; *see also* Campine, &c.
——, Borneo.—Fliegel, G., 1.
——, Boulonnais. — Barrois, C., 3; Deville, Ste.-Cl., 1.
——, Brazil.—Angelis d'Ossat, G. de, 2.
——, Burgundy.—Delafond, F., 1.
——, China.—Schellwien, E., 1.
——, concretions.—Lomas, J., 5.
—— contact with Liévin Silurian.—Desailly, —, 1.
——, Cornwall & Devon.—Ussher, W. A. E., 1.
——, Derbyshire.—Stobbs, J. T., 2.
——, Durham, &c.—Clough, C. T., 1.
——, Edinburgh.—Goodchild, J. G., 10.
——, Indiana.—Ashley G. H., 1 & 2; Hopkins, T. C., 1; Newsom, J. F., 2.
——, Iowa.—Udden, J. A., 2.
——, Ireland.—Cole, G. A. J., 1.
——, Kansas.—Beede, J. W., 1.
——, Maryland.—Clark, W. B., 1 & 2.
——, Nebraska.—Barbour, E. H., 1.
——, Nova Scotia.—Ami, H. M., 2.
——, Ohio.—Prosser, C. S., 2.
——, Oregon.—Washburne, C., 1.
——, Pennsylvania.—Adams, T. K., 1.
——, Rhenish Prussia. — Drevermann, F., 2; Holzapfel, E., 1.
——, Russia. — Tchernyshev, T., 1; Yakovlev, N., 4.
——, salt-water in Belgian. — Cornet, J., 1; Gevers-Orban, E., 1.
——, Sardinia.—Tornquist, A., 4.
——, Silesia (U.).—Michael, R., 1.
——, Staffordshire.—Hind, W., 6 & 7; Turner, E. P., 1.
——, temperature of the period.—Hoffmann J. F., 2.
——, Virginia (W.). — Campbell, M. R., 2; White, I. C., 1.
——, Yorkshire.—Dakyns, J. R., 1; Hind, W., 5; Wellburn, E. D., 1; *see also* Durham.
—— zones.—Arber, E. A. N., 5.
——. *See also* Culm, &c.
Carboniferous Limestone, Belgium. — Destinez, P., 1; Moulan, T. C., 2; Kersten, J 2.
Carboniferous Limestone, Bristol.—Morgan, C. L., 1.
—— ——, Derbyshire. — Arnold-Bemrose, H. H., 1.
—— ——, Durham, &c.—Clough, C. T., 1.
—— ——, France.—Delépine, G., 2.
—— ——, Lancashire.—Hind, W., 1.
Carborundum, crystallography of. — Negri, G. B., 1.
Carcharias.—Eastman, C. R., 2.
Carcharodon.—Eastman, C. R., 2; Koch, A., 4.
Cardiff (Glam.).—Strahan, A., 2.
Cardioceras.—Loriol, P. de, 1.
Cardiodon.—Bush, L. P., 1.
Cardiola.—Walther, K., 1.
Cardita.—Casey, T. L., 1.
Cardite.—Meunier, S., 2.
Cardium.—Bistram, A. von, 1; Dainelli, G., 3; Etheridge, R., Fil., 2; Franchis, F. de, 1; Shattuck, G. B., 1.
—— *pseudo-edule*-beds, Samara Gov.—Neustruev, S., 1.
Carical (India). *See* Karikal.
Carinthia (Austria).—Baumgærtel, B., 1; Hœfer, H., 2.
Carleton Co. (Ontario).—Ells, R. W., 3.
Carlsbad (Bohemia).—Prinz, W., 3.
Carlton Hill (Ayr).—Smith, J., 1.
Carnot (Algeria).—Ficheur, E., 1.
Carolina, N. (U.S.A.).—Watson, T. L., 1; Woodward, J. B., 1.
Carpathian Mts. (Hungary).—Beck, H., 1; Liebus, A., 2; Lugeon, M., 2; Martonne, E. de, 1; Schafarzik, F., 1 & 2; Sevastos, R., 2; Simionescŭ, J. T., 1; Uhlig, V., 2, 3, & 4; Vetters, H., 1; Zuber, R., 1.
Carpentaria, Gulf of (Queensland). — Jackson, C. F. V., 3.
Carrara (Tuscany). — Clerici, E., 1; Elsden, J. V., 9.
Carydium.—Maurer, F., 1.
Casas Grandes (Mex.).—Tassin, W., 1.
Casentino (Tuscany).—Lotti, B., 2.
Caseville (Basses-Pyrénées).—Carez, L., 3.
Caspian Sea.—Ochsenius, C., 5.
Cassel (Hesse). — Beyschlag, F., 1; Denckmann, A., 2; Hornstein, F., 1; Stille, H., 4; Walther, K., 1.
Cassis.—Cossmann, M., 2.
Cassiterite.—Seymour, H. J., 3.
Castanea.—Engelhardt, H., 1.
Castleton (Derby).—Stobbs, J. T., 2.
Castoridæ, Quaternary.—Bosco, C., 1.
Catalogue of Scientific Literature. — Morley, H. F., 1–4.
Catalonia (Spain). — Vidal, L. M., 1; Zeiller, R., 2.
Caterpillars, fossil.—Trotter, A., 1.
Caturus.—Sauvage, H. E., 2.
Caucasus.—Andersson, F., 1; Dervis, V., 1; Lœwinson-Lessing, F., 1; Michalovski, G. P., 1; Nikitin, S., 1; Reid, H. F., 1; Yermolov, A., 1.
Caupolican (Bolivia).—Evans, J. W., 1 & 2.
'Causses,' France.—Martel, E. A., 6.

Caverns & caves, artificial production of.—Meunier, S., 15.
——, Aveyron.—Fournier, E., 1.
——, Cyprus.—Woodward, H., 6.
——, Derbyshire.—Dawkins, W. B., 1.
——, Devon.—Ussher, R. J., 1.
——, Dordogne.—Martel, E. A., 4; Moissan, H., 2; Rivière, E., 1.
——, Gibraltar.—Acland, H. D., 1.
——, Haute-Garonne.—Boule, M., 1.
——, Ireland.—Præger, R. L., 1; Ussher, R. J., 1.
——, Lebanon.—Nehring, A., 1.
——, Lombardy.—Flores, E., 1.
——, Lot.—Viré, A., 1.
——, Mentone.—Gaudry, A., 1.
——, Missouri.—Gould, C. N., 1.
——, Muotta Valley.—Otter, J., 1.
——, New South Wales.—Pittman, E. F., 1.
——, San Diego (Cal.).—Lakes, A., 10.
——, Santander.—Cartailhac, E., 1.
——, Seine-Inférieure.—Fortin, R., 1.
——, Swiss Jura.—Forel, F. A., 2.
Caythorpe (Lincoln).—Preston, H., 1.
Cayuga, Lake (N.Y.).—Cleland, H. F., 1.
Cecil Co. (Md.).—Bascom, F., 1.
Celastrus.—Knowlton, F. H., 1.
Celebes I. (D.E.I.).—Koperberg, M., 1; Truscott, W. F. A., 1.
Celestine.—Samoïlov, J., 1.
Celestite.—Millosevich, F., 1; Pratt, J. H., 12; Termier, P., 2.
Celle (Hanover).—Ochsenius, C., 1.
Cellepora.—Maplestone, C. M., 1.
Cellular Magnesian Limestone, Durham.—Abbott, G., 1.
Celsian.—Strandmark, J. E., 1.
Cement-marls, Cambridgeshire.—Clayton, E. G., 1.
——, Hungary.—Koch, A., 2.
Cements, Portland.—Kimball, L. L., 6; Russell, I. C., 2; Taff, J. A., 2.
Cemetery sites, geology &.—Couppey de la Forest, M. le, 1.
Cenomanian, Devon, &c.—Jukes-Browne, A. J., 4.
——, Provence.—Jacob, C., 1; Repelin, J., 1.
——. *See also* Cretaceous.
Centronella.—Maurer, F., 1; Weller, S., 2.
Cephalomys.—Ameghino, F., 4.
Cephalopoda, Carboniferous.—Crick, G. C., 2; Foord, A. H., 1; Smith, J. P., 1.
——, Cretaceous.—Bogoslovski, N. A., 1; Burckhardt, C., 1; Etheridge, R., Fil., 2; Kossmat, F., 1; Sarasin, C., 2; Shattuck, G. B., 1; Solger, F., 1; Weller, S., 1; Whitfield, R. P., 2; Wollemann, A., 1; Uhlig, V., 1; Yabe, H., 1.
——, Devonian.—Drevermann, F., 3; Haug, E., 3.
——, evolution of.—Hœrnes, R., 4.
Cephalopoda, Jurassic.—Buckman, S. S., 2; Burckhardt, C., 1; Fucini, A., 1 & 2; Loriol, P. de, 1.
——, mode of existence.—Ruedemann, R., 2.
——, Ordovician.—Crick, G. C., 1.
——, Silurian.—Weller, S., 2.
——, Triassic.—Airaghi, C., 1; Franz, V., 1; Frech, F., 1; Hœrnes, R., 5; Kittl, E., 1; Schellwien, E., 1; Tommasi, A., 1.
——. *See also* Ammonites, &c.
Cephalotheca.—Nathorst, A. G., 1.
Ceram (D.E.I.).—Rudolph, E., 3.
Caterpeton.—Jækel, O., 2.
Ceratites.—Airaghi, C., 1.
Ceratotheca.—Drevermann, F., 2.
Ceratotrochus.—Dennant, J., 1; Felix, J., 2.
Ceriocrinus.—Beede, J. W., 1.
Ceriopora.—Dacqué, E., 1.
Cerithiella.—Chartron, C., 1.
Cerithium.—Cossmann, M., 1; Franchis, F. de, 1; Hœrnes, R., 1; Longhi, P., 1; Shattuck, G. B., 1.
—— *Diaboli*-beds.—Haug, E., 2.
—— limestone, Hesse.—Steuer, A., 2.
Cerussite.—Pettard, W. F., 1; Warren, C. H., 1.
Cervus.—Alessandri, G. de, 1; Ameghino, F., 2; Hepburn, D., 1; Sernander, R., 1; Smallwood, W. M., 1; Venukov, P. I., 1.
Cestracion.—Eastman, C. R., 1; Leriche, M., 1.
Cetacea, Tertiary.—Abel, O., 1; Delheid, E., 2.
Cetiosaurus.—Bush, L. P., 1.
Cetona, Mte (Tuscany).—Fucini, A., 1.
Ceylon.—Coomáraswámy, A. K., 2 & 5; Launay, L. de, 3; Lomas, J., 6; Prior, G. T., 5.
Chabalis (Savoy).—Lugeon, M., 5.
Chadwick, S. *See Obit.*, Anon., 4.
Chæthomites.—Pampaloni, L., 1.
Chalcopyrite.—Lespineux, G., 1; Schaller, W. T., 1.
Chaleux (Namur).—Van den Broeck, E., 15.
Chalk, Arkansas.—Taff, J. A., 2.
——, Berkshire.—Blake, J. H., 1.
—— boulders, Scania.—Holst, N. O., 1.
——, Carpathian.—Liebus, A., 2.
——, Denmark.—Ravn, J. P. J., 2.
——, dephosphatisation of phosphatic.—Gosselet, J., 3.
——, Devon.—Jukes-Browne, A. J., 4 & 6; Rowe, A. W., 2.
——, Hanover, &c.—Lamplugh, G. W., 2; Wollemann, A., 1 & 3.
——, Herts.—Jukes-Browne, A. J., 6; Woodward, H. B., 2 & 9.
——, Kent, Sussex, &c.—Jukes-Browne, A. J., 6; Woodward, A. S., 8.
——, Nord.—Dollé, L., 1; Lagaisse, —, 1; Lebrun, —, 1.
——, Norfolk.—Elsden, J. V., 5; Jukes-Browne, A. J., 6.

Chalk, Paris Basin.—Canu, F., 2.
——, phosphatic.—Briquet, A., 1 & 2; Lasne, H., 1; Rabelle, —, 1.
——, Provence.—Douvillé, H., 4; Toucas, A., 1.
——, sedimentation of.—Gosselet, J., 4.
——, Suffolk.—Jukes-Browne, A. J., 3 & 6.
——, Wiltshire.—Jukes-Browne, A. J., 6; Reid, C., 7; Rowe, A. W., 1.
——, zones.—Jukes-Browne, A. J., 3 & 6; Rowe, A. W., 1 & 2; Schrammen, A., 1; Woodward, H. B., 7.
Chalk-rubble, Sewerby.—Lamplugh, G. W., 3.
Chalybite.—Hutchinson, A., 1.
Chamblon (Vaud).—Stehlin, H. G., 2.
Champlain, Lake (U.S.A.).—Upham, W., 5.
Charleston (W. Va.).—Campbell, M. R., 3.
Charmouth (Dorset).—Lang, W. D., 1.
Charnwood Forest (Leicester).—Bennett, F. W., 1; Watts, W. W., 1; Woodward, H. B., 6.
Chartres (Eure-et-Loir).—Dollfus, G. F., 5.
Chartronia.—Buckman, S. S., 2; Chartron, C., 1.
Châtel-Saint Denis (Switzerland).—Sarasin, C., 2.
Cheadle (N. Staffs.).—Barrow, G., 1.
Cheesewring, the (Cornwall).—Hull, E., 2.
Cheirodus.—Eastman, C. R., 1.
Cheirolepis.—Mœller, H., 1.
Cheirotherium.—Beasley, H. C., 1.
Cheliphlebia.—Melander, A. L., 1.
Chelonia, Cretaceous.—Andrews, C. W., 1 & 5; Dollo, L., 2; Hay, O. P., 1; Osborn, H. F., 4; Wieland, G. R., 1.
——, Jurassic.—Fraas, E., 2.
——, Tertiary.—Dollo, L., 1 & 2; Fœrster, B., 7; Lœrenthey, E., 2; Lydekker, R., 1; Stefano, G. de, 3.
Cheltenham (Gloucester).—Wethered, E. B., 1.
Chemical classification, eruptive rocks.—Ans, J. d', 1.
—— laboratory, Canad. Geol. Survey.—Hoffmann, G. C., 1; Hungarian Geol. Survey.—Kalecsinsky, A. von, 1.
Chemistry, geology &.—Gans, R., 1; *see also* Soils, &c.
Cher (France).—Lamothe, R. de, 1; Péron, A., 1.
Cherbourg (Normandy).—Bigot, A., 6.
Chert, origin of.—Raisin, C. A., 1.
Cherty limestone, Nile Valley.—Beadnell, H. J. L., 1.
Cheshire.—Edwards, W., 1 & 2; Pickstone, W., 1.
Chesterfield Inlet (Keewatin).—Hanbury, D. T., 1.
Cheviot Hills (Northumberland).—Kendall, P. F., 3.
Chiapas (Mexico).—Collins, H. F., 1.
Chichester (Sussex).—Reid, C., 5 & 6.
Chihuahua (Mex.).—Lakes, A., 7 & 8; Weed, W. H., 2 & 3.
Chiknayakanhalli (Mysore).—Sambasiva Iyer, V. S., 1.
Chile (S. Am.).—Burckhardt, C., 1; Hauthal, R., 1; Labastie, F., 1; Paulcke, W., 1; Salcedo, J. V., 1; Sundt, L., 1.
Chi Li (China).—Drake, N. F., 1; Hoover, H. C., 1; Moller, W. A., 1.
China.—Crick, G. C., 1; Drake, N. F., 1; Frech, F., 1; Hoover, H. C., 1; Moller, W. A., 1; Monke, H., 1; Schellwien, E., 1; Wright, G. F., 1.
Ching Chow Fu (Shantung).—Crick, G. C., 1.
Chipping Sodbury. *See* Sodbury.
Chiropteris.—Seward, A. C., 2.
Chitaldrug (Mysore).—Sambasiva-Iyer, V. S., 1 & 2.
Chiuppano Hills (Venetia).—Patrini, P., 1.
Chlamys.—Ugolini, R., 4.
Chlorite.—Fromme, J., 1; Pettard, W. F., 1.
Chloromelanite.—Colomba, L., 2; Franchi, S., 3.
Chobham Ridges (Surrey).—Monckton, H. W., 3.
Chœrina.—Pavlov, P. S., 2.
Chomatodus.—Eastman, C. R., 1.
Chondrodonta.—Douvillé, H., 5; Hœrnes, R., 2; Schubert, R. J., 3; Stanton, T. W., 1.
Chonetes.—Chapman, F., 1; Weller, S., 2.
Christchurch (N.Z.).—Farr, C. C., 2.
Christmas I.—Skeats, E. W., 1.
Chromite, Baluchistan.—Holland, T. H., 3.
——, United States.—Pratt, J. H., 10.
Chrysocolla.—Lovisato, D., 2; Palmer, C. M., 1.
Chrysodomus.—Nelli, B., 1.
Chrysophrys.—Gorjanović-Kramberger, K., 1.
Chrysostoma.—Bistram, A. von, 1; Gortani, M., 3.
Church Stretton (Salop).—Cobbold, E. S., 1.
Chytra.—Moore, J. E. S., 1.
Cidaris.—Gauthier, V., 1; Longhi, P., 1; Loriol, P. de, 2.
Cilician Taurus (Anatolia).—Schaffer, F. X., 1–3; Toula, F., 1.
Cimini, Monti (Campania).—Fantappié, L., 1; Sabatini, V., 2.
—— tuff, formation of, & Ciminite.—Fantappié, L., 1.
Cimolichthys.—Branner, J. C., 1; Leriche, M., 1.
Cimoliosaurus.—Williston, S. W., 4.
Cincinnati anticline.—Fœrste, A. F., 1.
—— formation, Tennessee.—Fœrste, A. F., 2.

Cinglais, Pays de (Calvados).—Bigot, A., 5.
Cingoli (Marches, Italy).—Moderni, P.. 1.
Cinnabar.—Achiardi, G.d', 5; Lotti, B., 3.
Cinnamomum. — Engelhardt, H., 1; Knowlton, F. H., 1.
Cinulia.—Etheridge. R., Fil., 2.
Cionobrissus.—Gauthier, V., 1.
Cirripede, Tertiary.—Benham, W. B., 1.
Cladiscothallus.—Renault, B., 4.
Cladocora.—Felix, J., 3.
Cladodus.—Eastman, C. R., 1.
Cladopora.—Weller, S., 2.
Claosaurus.—Beecher, C. E., 2.
Clapsavon, Monte (Carnic Alps).—Tommasi, A., 1.
Clarendon (Otago).—Park, J., 1.
CLARKE Collection, Woodwardian Museum.—Kurtz, F., 1.
Clathurella.—Cossmann, M., 2.
Clausilia.—Pilsbry, H. A., 1.
Clava.—Hœrnes, R., 1.
Clavagella.—Dollfus, G. F., 6.
Clay, Alsace-Lorraine.—Van Werveke, L., 16.
——, Britanny.—Bézier, T., 1.
——, Camerino.—Mariani, M., 1.
——, Emilia.—Sangiorgi, D., 1.
—— industries, United States.—Middleton, J., 1.
——, Ireland.—Elsden, J. V., 8.
——, magnetism of Royat burnt.—Brunhes, B., 1.
——, Maryland.—Clark, W. B., 3 & 4.
——, nitrogen in. — Miller, N. H. J., 1.
—— pockets, Chalk, Nord. — Dollé, L., 1.
CLAYPOLE, E. W. *See Obit.*, Comstock, T. B., 1.
Clee Hill (Shropshire). — Moore, H. C., 1.
Clermont (Queensl.).—Dunstan, B., 2.
Cles (Tyrol).—Tietze, E., 5.
Cleveite.—Barker, G. F., 1.
Cleveland (Yorkshire).—Clark, J. E., 1; Hawell, J., 1; I'Anson, J. C., 1.
Clidastes, Williston, S. W., 2.
Cliffs, Picardy.—Bardou, —, 1.
——, San Diego (Cal.).—Lakes, A., 10.
Clifton Hampden (Oxon).—Pears, T., 1.
Cligga Head (Cornwall).—Scrivenor, J. B., 1.
Climates, evolution of.—Manson, M., 2; Wieland, G. B, 2.
——, geological.—Knipovich, N., 1.
Clinochlore.—Pettard, W. F., 1.
Clinton (N. Terr., S. Austr.).—Brown, H. Y. L., 4; Chewings, C., 1.
Clinton Limestone, Ohio. — Claypole, E., 1.
Clintonia.—Penhallow, D. P., 1.
CLOSE, M. H. *See Obit.*, Anon., 5; Cole, G. A. J., 5.
Cnoc-na-Sroine (Sutherland). — Goodchild, J. G., 11.
Coahuila (Mexico).—Ludlow, E., 1.
Coal, analyses of British.—Anon., 18.
——, —— of Pittsburg.—Haas, F., 1.
——, Australia. — Cameron, W. E., 2; Jackson, C. F. V., 3; Krusch, P., 1; Thompson, J. P., 1.
—— -balls.—Lomas, J., 5.
——, Belgium. *See* Campine, &c.
——, Bengal.—Adamson, T., 1.
——, British Columbia.—Prior, E. G., 1 & 2.
——, British, duration of supply.—Anon., 22; Davies, T. J., 1; Watts, W. W., 2.
——, Canada.—Ingall, E. D., 2.
——, China.—Hoover, H. C., 1; Moller, W. A., 1.
——, Colorado.—Hill, R. T., 2; Lakes, A., 15.
—— -fall Commission, Prussian.—Dobers, —, 1; Meissner, —, 1.
—— from fossil fish.—Sollas, W. J., 3.
——, gases in. — Bedson, P. P., 1; Broockmann, —, 1.
——, German E. Africa.—Macco, A., 1.
——, Gotland Cambrian.—Winkler, C., 1.
——, Great Britain, &c.—Foster, C. Le N., 2.
——, Heraklea.—Simmersbach, B., 1.
——, Hungary.—Kalecsinszky, A. von, 2.
——, Japan.—Anon., 26.
——, Lorraine.—Villain, F., 1.
——, Maryland.—Clark, W. B., 2.
—— Measures. *See* Carboniferous.
——, Mendoza.—Bodenbender, G., 1.
——, Mexico.—Aguilera, J. G., 1; Ludlow, E., 1.; White, W., Jun., 1.
——, Natal.—Gray, C. W., 1.
——, Newcastle (N.S.W.), undersea.—Atkinson, A. A., 1.
——, Nord & Pas-de-Calais.—Févre, —, 1; *see also* Boulonnais, &c.
——, Northumberland, undersea.—Forster, T. E., 1.
——, Nova Scotia.—Gilpin, E., Jun., 1 & 2.
——, Nyassa.—Henderson, J., 2.
——, Pennsylvania.—Adams, T. K., 1.
——, Rhenish Bavaria. — Ammon, L. von, 1.
——, Royal Commission.—Anon., 22.
——, Saghalin I.—Hawes, C. H., 1.
——, salt-water in. — Cornet, J., 1; Gevers-Orban, E., 1.
——, Tasmania.—Twelvetrees, W. H., 2 & 5.
——, Tomsk.—Peetz, H. von, 1.
——, Trinidad.—Anon., 20; Guppy, R. J. L., 1.
——, United States, occurrence. — Parker, E. W., 1.
——, Washington (U.S.A.). — Landes, H., 1.
——, White Horse, Yukon. — Brewer, W. M., 1.
——, Wyoming.—Knight, W. C., 1.

Coalfields, Africa (S.).—Molyneux, A. J. C., 1; Sawyer, A. R., 2 & 3.
——, Alabama.—Hayes, C. W., 2.
——, Alaska.—Brooks, A. H., 1; Kirsopp, J., Jun., 1.
——, Appalachian (N.).—White, D., 3.
——, Austria & Saxony.—Meissner, —, 1.
——, Belgium.—Dobers, —, 1; Harzé, E., 1 & 2; Kersten, J., 1 & 2; Lejeune de Schiervel, C., 1; Lohest, M., 1; Simoëns, G., 4–8; Stainier, X., 1–4.
——, Bohemia.—Bathe, E., 1; Meissner, —, 1; Weithofer, K. A., 1.
——, China.—Drake, N. F., 1.
——, Cumberland.—Arber, E. A. N., 3.
——, Dumfries.—Kidston, R., 2.
——, France.—Delafond, F., 1; Deville, Ste.-Cl., 1; Dobers, —, 1; Grossouvre, A. de, 5; Léon, —, 1.
——, Illinois & Indiana.—Ashley, G. H., 1 & 2.
——, India.—Grover, F., 1; Grundy, J., 1; Holland, T. H., 3; Stonier, G. A., 1 & 2.
——, Kansas.—Crane, W. R., 2.
——, Michigan.—Lane, A. C., 1 & 2.
——, Missouri.—Bain, H. F., 1.
——, Montana.—Rowe, J. P., 1.
——, New South Wales.—Pittman, E. F., 1; *see also* Australia.
——, Pacific Coast (U.S.A.).—Smith, G. O., 1.
——, Pennsylvania.—Heurteau, C. E., 1; Simmersbach, B., 1; Stœk, H. H., 1.
——, Rocky Mts. (U.S.A.).—Stobbs, L. S., 1.
——, Saarbrück.—Meyer, G., 1.
——, Sabero.—Mallada, L., 1.
——, Staffordshire (N.).—Barrow, G., 1; Cadman, J., 1; Hind, W., 7; Stobbs, J. T., 3; Turner, E. P., 1.
——, United States, occurrence in.—Day, D. T., 1; Hayes, C. W., 1.
——, ——, Eastern States.—Woodworth, J. B., 1.
——, ——, Southwestern States.—Taff, J. A., 1; *see also* Illinois, &c.
——, Virginia (W.).—Heurteau, C. E., 1; Simmersbach, B., 1; Woodworth, J. B., 2.
——, Wales (S.).—Jordan, H. K., 1; Strahan, A., 2–5.
——, Westphalia.—Middelschulte, A., 1.
——, Yubari.—Anon., 26.
Coast, Chile.—Sundt, L., 1.
Coast-erosion.—Cole, G. A. J., 1; Lakes, A., 12.; O'Reilly, J. P., 1.
Coast-Ranges, California.—Lawson, A. C., 1.
Cobalt.—Caballero, G. de J., 1; Johnsen, A., 1; Pratt, J. H., 2.
Coblentz (Rh.-Prussia).—Delkeskamp, R., 2.
Coccosteus.—Sollas, W. J., 3.
Cochise Co. (Ar.).—Dumble, E. T., 1.
Cochlespirella.—Casey, T. L., 1.
Cochlops.—Scott, W. B.
Cockroaches, Carboniferous.—Sellards, E. H., 1.
Codiopsis.—Lambert, J., 2.
Codonotheca.—Sellards, E. H., 2.
Cœlacanthus.—Eastman, C. R., 1.
Cœlenterata, geological zones &.—Goodchild, J. G., 4.
Cœlocystis.—Schuchert, C., 5.
Cœlodus.—Gorjanovič-Kramberger, K., 1; Leriche, M., 1; Longhi, P., 1.
Cœlostylina.—Chartron, C., 1.
Cœnotherium.—Depéret, C., 3.
Cogne (Graian Alps).—Bonney, T. G., 3.
Collie (W. Austral.).—Krusch, P., 1.
Collingwood (N.Z.).—Park, J., 2.
Collins, A. L. *See Obit.*, Lapworth, C., 1.
Colombia (S. Am.).—White, R. B., 1.
Colorado (U.S.A.).—Crosby, W. O., 2; Davis, W. M., 2; Eldridge, G. H., 1; Fellows, A. L., 1; Fenneman, N. M., 1; Hatcher, J. B., 2; Hill, R. T., 2; Lakes, A., 1, 4, 5, 9, 15; Lay, H. C., 1; Matthew, W. D., 3; Ransome, F. L., 1; Read, T. T., 1; Richard, T. A., 1; Stearns, R. E. C., 1; Stobbs, L. S., 1; Welles, A. M., 1; Yunge, G., 1.
Columbus (Ga.).—McCallie, S. W., 2.
Colymbus.—Regàlia, E., 1.
Combe-Payne Hill (Dorset).—Woodward, H. B., 10.
Comets.—Shaw, F. G.
Como, Lake (N. Italy).—Artini, E., 2; Flores, E., 3.
Comoseris.—Osasco, E., 1.
Compsognathus.—Nopčsa, F. von, Jun., 8.
Comstock (Tasm.).—Waller, G. A., 2.
Concannon Farm, Lansing (Kan.).—Winchell, N. H., 3.
Conchidium.—Lotz, H., 1.
Concretionary limestone, Mysore.—Wetherell, E. W., 4.
Concretions, calcareous.—Hogg, E. G., 1.
——, Coal-Measure.—Lomas, J., 5.
——, Creechbarrow.—Hudleston, W. H., 1.
——, oolitic.—Erdmann, E., 1; Raisin, C. A., 1.
——, shore.—Du Bois, G. C., 1.
Concud (Spain).—Woodward, A. S., 4.
Condicote (Gloucester).—Richardson, L., 4.
Condroz massif (Namur).—Simoëns, G., 1.
Conducia (Portuguese E. Africa).—Choffat, P., 2 & 3.
Cone-in-cone structure.—Reis, O. M., 1.
Confusastræa.—Osasco, E., 1.

Congeria.—Pavlov, P. S., 1.
Conglomerates, Bleiberg.—Hœfer, H., 2.
——, Bukhara gold-.—Levat, E. D., 1.
——, Malmedy.—Van Werveke, L., 1.
——, Permian.—Kendall, P. F., 1.
——, quartz-etching in.—Fuller, M. L., 2.
——, Rhein-Hesse Quaternary.—Schopp, H., 1; Swiss Quaternary.—Rollier, L., 1.
——, Sydenham (Vict.).—Hart, T. S., 1.
——, Ural Mts.—Duparc, L., 7.
Congo Free State (Equatorial Africa).—Cornet, J., 5; Katanga, A., 1.
Congress, Geological, Vienna, 1903.—Anon., 30.
——, Seismological. — Montessus de Ballore, F. de, 4.
Connecticut (U.S.A.).—Hobbs, W. H., 1, 3, 4 & 6.
Conoclypeus.—Checchia-Rispoli, G., 1; Gauthier, V., 1.
Conocyathus.—Dennant, J., 1.
Conrad Collection.—Casey, T. L., 1.
Contact-deposits, Alaska.—Thomæ, W. F. A., 1.
—— ——, origin of.—Lindgren, W., 2; Weed, W. H., 5.
—— metamorphism. — Achiardi, G. d', 1; Dalmer, K., 1; Weinschenk, E., 4; *see also* Metamorphism, Ores, &c.
—— minerals.—Fromme, J., 1.
Continents, origin of.—Mackie, W., 2.
Contraction-cylinder, igneous rock. — Kueppers, E., 1.
Conularia.—Walther, K., 1.
Conus.—Casey, T. L., 1.
Cook Inlet (Alaska).—Kirsopp, J., Jun., 1.
Coolgardite.—Spencer, L. J., 1.
Coorongite.—Cumming, A. C., 1.
Copenhagen (Denmark).—Zachariæ, —, 1.
Copiapite.—Schaller, W. T., 1.
Copper, Alsace-Lorraine. — Schweitzer, J., 1.
——, Arizona.—Palmer, C. M., 1.
——, Bathurst Inlet. — Hanbury, D. T., 1.
——, British Columbia.—Johnson, P., 1.
——, Canada. — Dickson, C. W., 1; Ingall, E. D., 2.
——, Colorado.—Ransome, F. L., 1.
——, Congo Free State.—Cornet, J., 5; Katanga, A., 1.
——, crystallized.—Ites, P., 1.
——, Harz.—Hornung, F., 1.
——, Lake Superior.—Grant, U. A., 1.; Vattier, C., 1.
——, Mexico.—Aguilera, J. G., 1.
——, Michigan.—Jackson, J. F., 1.
——, New Jersey.—Kuemmel, H. B., 1; Weed, W. H., 6.
——, New South Wales.—Pittman, E. F., 1.
——, Nova Scotia.—Gilpin, E., Jun., 1.
——, Old Red Sandstone, Scotland.—Mackie, W., .
Copper, Peru.—Stevanović, S., 1.
——, Prussian Saxony.—Naumann, E., 1.
——, Queensland.—Ball, L. C., 3; Cameron, W. E., 2.
——, Sardinia.—Rimatori, C., 2.
——, Styria.—Redlich, K. A., 1.
——, Tasmania.—Waller, G. A., 3.
——, Tennessee.—Kemp, J. F., 3.
——, Turkestan.—Levat, E. D., 1.
——, United States production.—Day, D. T., 1; Kirchoff, C., 1.
——, Virginia & N. Carolina.—Watson, T. L., 1.
Coprolites, *Iguanodon.*—Bertrand, C. E., 1.
Coral, disintegration of.—Duerden, J. E., 1.
—— islands, Pacific.—Reed, F. R. C., 3.
—— ——, limestone, composition. — Skeats, E. W., 1.
—— -reefs, Bermuda, &c.—Verrill, A. E., 1 & 2.
—— ——, destruction by algæ, &c.—Gardiner, J. S., 2.
—— ——, formation of.—Agassiz, A., 2; Gardiner, J. S., 1; Strijov, I. N., 1.
—— ——, Pacific. — Agassiz, A., 1 Sherlock, R. L., 1.
—— ——, Pemba.—Crossland, C., 1.
Corals, Carboniferous.—Angelis d'Ossat, G. de, 2.
——, Cretaceous.—Felix, J., 1–3; Longhi, P., 1; Shattuck, G. B., 1; Volz, W., 1.
——, Devonian. — Beecher, C. E., 1; Benecke, E. W., 4; Penecke, K. A., 1; Schuchert, C., 4; Weller, S., 2.
——, Jurassic.—Bistram, A. von, 1; Steinmann, G., 4.
—— ——, in N. German Drift.—Oppenheim, P., 4.
——, reef-building.—Verrill, A. E., 2.
——, Rhætic.—Tomes, R. F., 1.
——, Silurian.—Etheridge, R., Fil., 3; Goodchild, J. G., 4; Weller, S., 2.
——, Tertiary. — Angelis d'Ossat, G. de, 4; Dennant, J., 1; Felix, J., 3; Oppenheim, P., 2 & 6; Osasco, E., 1; Savornin, J., 1; Steinmann, G., 3.
——, Triassic.—Angelis d'Ossat, G. de, 5; Papp, C., 1; Tomes, R. F., 1.
Corax.—Leriche, M., 1.
Corbicula.—Etheridge, R., Fil., 2.
Corbis.—Bistram, A. von, 1; Dacqué, E., 1.
Corbula.—Casey, T. L., 1; Dollfus, G. F., 6; Franchis, F. de, 1.
Corbulomya.—Dollfus, G. F., 6.
Cordaicladus.—Zeiller, R., 2.
Cordierite.—Fromme, J., 1; Lacroix, A., 8.
Corfield, W. H. *See Obit.*, Woodward, H., 10.
Cork, Co. (Ireland).—Muff, H. B., 1.

Corniferous Limestone, Ohio.—Claypole, E. W., 1.
Cornon (Tyrol).—Ippen, J. A., 2.
Cornuspira.—Schick, T., 1.
Cornwall.—Collins, J. H., 1; Flett, J. S., 1; Fox, H., 1 & 2; Hill, J. B., 1; Hull, E., 2; Hutchinson, A., 1; Johnson, J. P., 1; Kennard, A., 1; Parkinson, J., 1; Reid, C., 2; Scrivenor, J. B., 1; Ussher, W. A. E., 1; Woodward, H., 1
Corsica, I. of.—Castelnau, P., 1; Rikli, M.. 1; Tornquist, A., 4.
Corundum, Ceylon. — Coomáraswámy, A. K., 2.
——, Mysore.—Primrose, A., 1.
——, United States.—Kunz, G. F., 3; Lawson, A. C., 2; Pratt, J. H., 5.
Corvus.—Regàlia, E., 1.
Corydon (Ind.).—Ashley, G. H., 1.
Cossa, A. *See Obit.*, Mattirolo, E., 1 & 2.
Costa, O. G. *See* Fornasini, C., 2.
Cotteswold Hills (Gloucester, &c.). — Buckman, S. S., 4; Richardson, L., 4.
Cottian Alps. *See* Alps.
Cottonwood Limestone, Kansas.—Beede, J. W., 3.
Couasme, Buttes de (Ille-et-Vilaine).—Kerforne, F., 2.
Coux, Col de (Savoy). — Preiswerk, H., 1.
Cowley (Gloucester). — Richardson, L., 1.
Crag, East Anglian.—Monckton, H. W., 1 & 6.
Crake-Low Farm (Derby). — Arnold-Bemrose, H. H., 1.
Crania.—Weller, S., 2.
Craniella.—Chapman, F., 1.
Crassatellina.—Yakovlev, N., 1.
Crassatellopsis.—Maurer, F., 1.
Cratægus.—Knowlton, F. H., 1.
Craticularia. — Ungern-Sternberg, E. von, 1.
Crater Lake (Or.).—Bonney, T. G., 9; Diller, J. S., 3.
——, Soufrière, St. Vincent.—Sapper, K., 12.
Crayford (Kent).—Salter, A. E., 1.
Creechbarrow (Dorset).—Hudleston, W. H., 1.
Creede (Colo.).—Lakes, A., 6.
Creniceras.—Loriol, P. de, 1.
Cretaceous, Algeria.—Fourtau, R., 2; Ritter, E., 1; Riaz, A. de, 1.
——, Andes. — Burckhardt, C., 1; Paulcke, W., 1.
——, Antarctic.—Weller, S., 1.
——, Apulia.—Franchis, F. de, 1.
——, Argentina. — Ameghino, F., 2; Burckhardt, C., 1.
——, Ariège.—Carez, L., 5 & 7.
——, Arkansas.—Taff, J. A., 2.
——, Australia.—Thompson, J. P.,
——, Austria (U.).—Felix, J., 2.
——, Baluchistan.—Nœtling, F., 1.
——, Bedfordshire.—Home, H., 1.
Cretaceous, Belgium.—Lambert, J., 3.
——, Berks.—Lamplugh, G. W., 1.
——, Bohemia & Saxony.—Petrascheck, W., 1.
——, Boulonnais.—Rigaux, E., 1.
——, Canada.—Hatcher, J. B., 1; Osborn, H. F., 4.
——, Cape Colony.—Rogers, A. W., 3.
——, Chile.—Paulcke, W., 1.
——, classification of.—Dollfus, G. F., 3.
——, Crete, I. of.—Cayeux, L., 2.
——, Dakota (S.).—Lucas, F. A., 6.
——, Denmark.—Ravn, J. P. J., 1 & 2.
——, Dorset.—Lang, W. D., 1.
——, Egypt.—Beadnell, H. J. L., 1; Dacqué, E., 1; Fourtau, R., 3.
——, England.—Jukes-Browne, A. J., 6; Lamplugh, G. W., 1; Rowe, A. W., 2; Woodward, A. S., 8; *see also* Berks, &c.
——, Fribourg (Switzerland).—Sarasin, C., 2.
——, Goritz.—Hœrnes, R., 2.
——, Greece.—Cayeux, L., 1.
——, Hanover.—Lamplugh, G. W., 2; Wollemann, A., 1 & 3.
——, Haute-Garonne, &c.—Carez, L., 4.
——, Hungary.—Liebus, A., 2; Pálfy, M. von, 2; Pethœ, J., 3.
——, Japan.—Yabe, H., 1.
——, Kansas.—Eaton, G. F., 2; Lindgren, W., 2.
—— land-mollusca, Oppeln.—Michæl R., 2.
—— limestone, Calloneghe. — Longhi, P., 1.
——, Lippe-Schaumburg.—Harbort, E., 1.
——, Maryland. — Clark, W. B., 1 & 4.
——, Montana.—Rowe, J. P., 1; Stanton, T. W., 2; Willis, B.. 1.
——, Montenegro.—Antula, J., 1.
——, Mozambique. — Choffat, P., 2 & 3.
——, Nebraska.—Barbour, E. H., 1.
——, New Jersey.—Parsons, A. L., 1.
——, Nord.—Leriche, M., 1.
——, Oregon.—Washburne, C., 1.
——, Paris Basin.—Canu, F., 2.
——, Patagonia.—Ameghino, F., 6.
——, Persia.—Cotteau, G., 1.
——, Provence.—Jacob, C., 1; Pellat, E., 1.
——, Queensland.—Gregory, J. W., 6.
——, Rumania.—Sevastos, R., 2.
——, Russia.—Bogoslovski, N. A., 1; Borisiak, A., 1.
——, Salt Range.—Koken, E., 2; Seeley, H. G., 1.
——, Servia.—Eletz, V. M., 1.
——, Silesia.—Scupin, H., 1; Uhlig, V., 1.
——, Sokotra.—Kossmat, F., 1.
——, Texas, &c.—Shattuck, G. B., 1.
——, Tunis.—Pervinquière, L., 1.
——, Umbria.—Lotti, B., 1.

Cretaceous, Venetia.—Airaghi, C., 2; Oppenheim, P., 5.
——, Wiltshire.—Reid, C., 7; Rowe, A. W., 2.
——, Wyoming.—Hatcher, J. B., 1.
——. *See also* Danian, &c.
Crete, I. of.—Cayeux, L., 2–6.
Creuse (France).—Michel-Lévy, A., 1.
Creusot, (Saône-et-Loire). — Delafond, F., 1.
Crewe (Cheshire).—Edwards, W., 1.
Cribroblastus.—Hambach, G., 1.
Crinoidea, Carboniferous.—Beede, J. W., 1.
——, Cretaceous. — Loriol, P. de, 2; Wollemann, A., 1.
——, Devonian.—Drevermann, F., 2; Hambach, G., 1.
——, Silurian. — Grabau, A. W., 1; Schuchert, C., 5.
Crioceras.—Sarasin, C., 2.
Cristellaria.—Schick, T., 1.
Croatia.—Gorjanovič-Kramberger, K., 2; Lapouge, G. de, 2.
Crocoisite.—Pettard, W. F., 1.
Cross Hands (Caermarthen).—Strahan, A., 3.
Crowle (Worcester).—Richardson, L., 3.
Crow's Nest (N.W. Canada).—Lakes, A., 11.
Crozon (Britanny).—Barrois, C., 5.
Crumlin (Antrim).—Gurney, H. P., 1.
Crustacea, Carboniferous.—Baldwin, W., 2; Rogers, A. F., 1.
——, classification of.—Packard, A. S., 2.
——, evolution of.—Woodward, H., 12.
——, Tertiary.—Fœrster, B., 5; Woodward, H., 5.
——. *See also* Trilobites, &c.
Cryolite.—Baud, E., 1; Pratt, J. H., 7.
Cryphæus.—Walther, K., 1.
Cryptogams, Palæozoic.—Renault, B., 1; Scott, D. H., 1; *see also* Plants.
Cryptospira.—Cossmann, M., 2.
Crystalline boulders, Sylt, &c.—Petersen, J., 1.
—— rocks, Maryland.—Bascom, F., 1.
—— schists, granite &.—Greenly, E., 1; *see also* Metamorphic, &c.
Crystallization, mineral inter-.—Delkeskamp, R., 1; Muegge, O., 1.
——, order of mineral.—Dœlter, C., 1; Fedorov, E. S., 4.
Crystallography.—Fedorov, E. S., 2–6; Geinitz, E., 1; Miers, H. A., 2; Rogers, A. F., 3; Sprockhoff, M., 1; Tschermak, G., 1; Viola, C., 1, 3 & 4; Williams, G. H., 1; Wright, F. E., 1.
——, 1901–1902.—Morley, H. F., 1.
Crystals, classification of.—Wallerant, F., 1.
——, etched figures.—Goldschmidt, V., 1 & 3.
——, formation of.—Gaubert, P., 1.
——, gnomonic projection. — Smith, G. F. H., 2.
——, primitive form of. — Wallerant, F., 2.
Crystals, rock-section.—Stœber, F., 2.
——, structure of.—Baumhauer, H., 1; Viola, C., 1, 3 & 4.
——, symmetry of.—Melczer, G., 2; Sommerfeldt, E., 1.
——, twinning of.—Viola, C., 5; Johnsen, A., 2.
Ctenacanthus.—Eastman, C. R., 1.
Ctenodonta.—Drevermann, F., 2; Maurer, F., 1; Walther, K., 1; Weller, S., 2.
Ctenodus.—Leriche, M., 1.
Ctenomys.—Ameghino, F., 2.
Ctenopteris.—Penhallow, P. D., 1.
Cuba (W. I.).—Birkinbine, J., 1; Eigenmann, C. H., 1.
Cucullæa.—Burckhardt, C., 1; Dacqué, E., 1; Shattuck, G. B., 1.
Cucullella.—Maurer, F., 1; Walther, K., 1.
Cucuron (Vaucluse).—Savornin, J., 2.
Cue (W. Austral.).—Campbell, W. D., 1.
Cuesmes (Hainault).—Kersten, J., 1.
Cuillin Hills (Skye, I. of).—Harker, A., 1.
Culm, Hesse.—Parkinson, H., 1.
——, Rhenish Prussia. — Drevermann, F., 2.
Cumberland.— Anon., 18; Arber, E., A. N., 3; Burns, D., 1; Kendall, P. F., 1; Nall, W., 1; Postlethwaite, J., 1; Walker, E. E., 1; Walker, W. E., 1.
Cumbraes Is. (Scotland).—Gunn, W., 1.
Cupro-uranite.—Buchholz, Y., 1.
Cushendall (Antrim). — Knowles, W. J., 2.
Cutch (India).—Kitchin, F. L., 1.
Cuyuni River (Brit. Guiana). — Harrison, J. B., 1.
Cyathomorpha & *Cyathophora.*—Osasco, E., 1.
Cyathophyllum.—Penecke, K. A., 1.
Cyathosmilia.—Dennant, J., 1.
Cycad-fruits.—Compter, G., 1.
Cycadocarpedium, *Cycadocephalus*, & *Cycadospadix.*—Nathorst, A. G., 2.
Cyclammina.—Herrmann, A., 1; Liebus, A., 2.
Cyclolites.—Felix, J., 2 & 4; Longhi, P., 1.
Cyclolobus.—Gortani, M., 3.
Cyclus.—Rogers, A. F., 1.
Cylindrobullina.—Bistram, A. von, 1; Chartron, C., 1.
Cyllene.—Cossmann, M., 2.
Cyonasua.—Ameghino, F., 4.
Cyperacetes.—Knowlton, F. H., 1.
Cyphaspis.—Weller, S., 2.
Cyphastræa.—Felix, J., 3.
Cyphosoma.—Paulcke, W., 1.
Cypræa.—Shattuck, G. B., 1.
Cypricardella.—Maurer, F., 1.
Cyprina & *Cytherea.*—Etheridge, R., Fil., 2.
Cyprus.—Agamennone, G., 1; Bate, D. M. A., 1; Woodward, H., 6.
Cyrtina. — Bittner, A., 1; Œhlert, D. P., 1; Weller, S., 2.

Cyrtodontarca.—Yakovlev, N., 4.
Czarkowy (Russian Poland).—Shkljarevski, A., 1.
Czekanowskia.—Mœller, H., 1.

Dacite, Caucasus. — Lœwinson-Lessing, F., 1.
——, Oregon.—Diller, J. S., 3.
Dadoxylon.—Scott, D. H., 1.
Daghestan Gov. (Caucasus).—Golubyatnikov, D. V., 1; Vernadski, V., 1.
Dahlonega (Ga.).—Eckel, E. C., 1.
Dakota (U.S.A.). — Irving, J. D., 1; Lucas, F. A., 3 & 6; Richardson, G. B., 1; Stobbs, L. S., 1; Todd, J. E., 1.
Dalecarlia (Sweden).—Lœfstrand, G., 1.
Dalmanella.—Weller, S., 2.
Dalmatia.—Bittner, A., 1; Bukowski, G. von, 1; Hœrnes, R., 2; Kerner, F. von, 1–6; Kittl, E., 1; Schubert, R. J., 1–3; Tietze, E., 4.
Damour, A. A. *See Obit.*, Voit, C., 1.
Danburite.—Weber, M., 2.
Danian.—Grossouvre, A. de, 3; Ravn, J. P. J., 1.
Dannemora (Upsala).—Launay, L. de, 4.
Danube R. (Lower).—Schafarzik, F., 5; Treitz, P., 2.
—— (Upper).—Haag, F., 1.
Daonella.—Tornquist, A., 3.
Dapedius.—Deecke, W., 2.
Darjiling (Himalayas). — Freshfield, D. W., 1.
Darmstadt (Hesse). — Chelius, C., 1; Klemm, G., 1; Kueppers, E., 1.
Dartmoor (Devon).—Worth, R. H., 1.
Darwin, Mt. (Tasmania). — Waller, G. A., 3.
Darwinia.—Penecke, K. A., 1.
Darwinism.—Anon., 37.
Dasypus.—Ameghino, F., 2.
Dates of publication of certain vertebrate fossil-names.—Bush, L. P., 1.
Datolite.—Papov, S. P., 1; Slavik, F., 1.
Dauphiné (France).— Belloc, E., 1; Fliche, P., 1; Kilian, W., 1, 2, 6; Frech, F., 1; Loriol, P. de, 2; Martin, D., 1; Termier, P., 3.
Davidstow (Cornwall).—Parkinson, J., 1.
Dawson, G. M. *See Obit.*, Adams, F. D., 2; Ami, H. M., 6; Harrington, B. J., 1.
Day Dawn (W. Austral.). — Campbell, W. D., 1.
De Aar (Cape Colony).—Barker, T. V., 1.
Dead Sea (Palestine). — Blanckenhorn, M., 4.
Dean, Forest of (Gloucester).—Moore, H. C., 1.
Death Valley (Cal.).—Campbell, M. R., 1 & 2.
Deccan (India).—Strachey, R., 1.
Defrance collection, Caen.—Bigot, A., 2.
Deister Mts. (Hanover).—Stille, H., 1; Wunstorf, W., 1.
Delaware Valley (N.J.). — Weller, S., 2.
Delme (Lorraine). —Van Werveke, L., 17.
Delphinula.—Etheridge, R., Fil., 2.
Delphinus.—Koch, A., 4.
Delta-plain, Massachusetts.—Mills, F. S., 1.
Deltodus.—Eastman, C. R., 1.
Den Hill (Tasmania).—Twelvetrees, H. W., 1.
Denckmannia.—Buckman, S. S., 2.
Dendracis.—Osasco, E., 1.
Dendrogyra.—Felix, J., 2.
Dendrophyllia & *Dendrosmilia.*—Felix, J., 3.
Denham (Bucks).—Howe, J. A., 1.
Denmark. — Ravn, J. P. J., 1 & 2; Ussing, N. V., 1; Wesenberg-Lund, C., 1; Zachariæ, —, 1.
Density, sea-water.—Arçtowski, H., 4; Thoulet, J., 1.
Dentalium.—Casey, T. L., 1; Etheridge, R., Fil., 2.
Denudation, experiments with fresh & salt water.—Joly, J., 2.
Denver (Colo.).—Fairchild, H. Le R., 1; Henderson, J., 1; Lakes, A., 15.
Deposition, mechanism of.—Blake, J. F., 2.
Derbent (Daghestan). — Golubyatnikov, D. V., 1.
Derbyshire.—Arnold-Bemrose, H. H., 1; Dawkins, W. B., 1; Moore, S., 1; Stobbs, J. T., 2.
Dercetis.—Woodward, A. S., 8.
Deroceras.—Buckman, S. S., 2.
Desert sandstone, Australia.—Thompson, J. P., 1.
Deserts, Asia (Central).—Hedin, S., 1.
——, Colorado.—Stearns, R. E. C., 1.
——, origin of.—Stromer, E. von, 1.
Desmine.—*See* Stilbite.
Desmoceras.—Etheridge, R., Fil., 2.
Desmophyllum.—Dennant, J., 1.
Deuterotherium.—Ameghino, F., 4.
Deutschbrod (Bohemia).—Hinterlechner, K., 2.
Devitrification, igneous rock.—Bonney, T. G., 12.
Dévoluy (France).—Fliche, P., 1.
Devonian, Alsace-Lorraine.— Jækel, O., 1.
——, Arctic.—Kayser, E., 1.
——, Argentina.—Bodenbender, G., 1.
——, Asia Minor.—Penecke, K. A., 1.
——, Bohemia.—Jahn, J. J., 1.
——, classification of the Upper.—Kayser, E., 2.
——, Cornwall.—Woodward, H., 1.
——, Hesse.—Denckmann, A., 1.
—— iron-ores, Germany (N.W.).—Harbort, E., 2.
——, Maryland.—Clark, W. B., 3; Schuchert, C., 6.
——, Missouri.—Keyes, C. R., 1.
——, Moravia.—Bock, H., 1; Kretschmer, F., 1.

Devonian, Nassau.—Drevermann, F., 1; Lotz, H., 2; Maurer, F., 1.
——, New Jersey.—Weller, S., 2.
——, New York.—Cleland, H. F., 1; Talbot, M., 1.
——, Nova Scotia.—Ami, H. M., 3.
——, Ohio Basin.—Claypole, E. W., 1; Prosser, C. S., 2.
——, Ontario.—Shimer, H. W., 1.
——, Pas-de-Calais.—Gosselet, J., 6.
——, Rhenish Prussia.—Drevermann, F., 2.
——, Russia.—Duparc, L., 5 & 7; Schuchert, C., 4.
——, St. Helen's I.—Nolan, A. W., 1.
——, Sudan.—Haug, E., 3.
——, Tennessee.—Fœrste, A. F., 3.
——, United States.—Schuchert, C., 4.
Devonshire.—Collins, J. H., 1; Hamling, J. G., 1; Hunt, A. R., 1, 5, 7, & 8; Jukes-Browne, A. J., 4; Lowe, H. J., 1; Reid, C., 2; Rowe, A. W., 2; Shrubsole, O. A., 1; Small, E. W., 1; Somervail, A., 1-3; Ussher, W. A. E., 1; Worth, R. H., 1.
Dhuis R. (Aisne).—Babinet, —, 1.
Diabase, Bohemia.—Hinterlechner, K., 1.
——, Hesse.—Harbort, E., 2; Heineck, F., 2.
——, Maryland.—Clark, W. B., 4.
——, Saxony.—Beck, R., 1.
——, Sudan.—Lacoin, —, 1.
——, Tasmania.—Stephens, T., 1.
Diamonds, Africa (S.).—Merrill, G. P., 3.
——, Brit. Guiana.—Hargreaves, T. S., 1.
——, Indiana.—Blatchley, W. S., 3.
——, United States.—Hobbs, W. H., 2; Kunz, G. F., 3.
——, Ural.—Mamontov, V. N., 1.
Diana.—Pavlov, P. S., 2.
Diaphorite.—Hulyák, V., 1.
Diaspites.—Pampaloni, L., 1.
Diatomaceous earth, Arizona.—Blake, W. P., 3.
—— ——, Australia (W.).—Maitland, A. G., 1.
—— ——, Gotland.—Post, L. von, 1.
Diatryma.—Lucas. F. A., 8.
Diceras.—Franchis, F. de, 1.
Diceratosaurus.—Jækel, O., 2.
Dictyonema (?).—Hind, W., 2.
——-slates, Nova Scotia.—Ami, H. M., 4; Poole, H. S., 2.
Dictyoneura & *Dieconeura.*—Melander, A. L., 1.
Dictyozamites.—Mœller, H., 1; Seward, A. C., 1.
Dikelocephalus.—Weller, S., 2.
Dillenburg (Nassau).—Harbort, E., 2; Lœcke, —, 1; Lotz, H., 2.
Dimorphastræa.—Felix, J., 7; Osasco, E., 1.
Dimorphina.—Liebus, A., 2.
Dimorphocella.—Maplestone, C. M., 1.
Dimorphoceras.—Smith, J. P., 1.
Dimyopsis.—Bistram, A. von, 1.
Dinlleyn, Porth- (Caernarvon).—Cope, T. H., 1.
Dinocyon.—Matthew, W. D., 1.
Dinosauria, Belgian.—Dollo, L., 3.
——, Cretaceous.—Beecher, C. E., 2; Lucas, F. A., 1 & 6; Nopčsa, F. von, Jun., 2.
——, extinction of.—Andrews, C. W., 2.
——, Jurassic.—Hatcher, J. B., 2; Riggs, E. S., 1.
—— nomenclature of.—Nopčsa, F. von, Jun., 4.
——, Triassic.—Nopčsa, F. von, Jun., 1; Woodward, A. S., 7.
Dinotherium.—Venukov, P. I., 1.
Dionide.—Reed, F. R. C., 5.
Dioonites.—Nathorst, A. G., 2.
Diopside.—Weinschenk, E., 3.
Diorite, Alpes-Maritimes.—Roccati, A., 1.
——, Austria (Lr.).—Morozevich, I., 1.
——, Bohemia.—Hinterlechner, K., 1.
——, definition of.—Osann, A., 5.
——, Ireland.—Joly, J., 6.
——, Montenegro.—Manasse, E., 1.
——, Mysore.—Slater, H. K., 1.
——, Tyrol.—Ippen, J. A., 3; Hammer, W., 2.
Diospyros.—Knowlton, F. H., 1.
Dipeltis.—Melander, A. L., 1.
Diphyodus.—Osborn, H. F., 4.
Diplocaulus.—Jækel, O., 2.
Diploctenium.—Felix, J., 4; Longhi, P., 1.
Diplodocus.—Nopčsa, F. von, Jun., 2.
Diplopora.—Benecke, E. W., 2.
Diploria.—Felix, J., 2; Osasco, E., 1.
Diprotodon.—Ameghino, F., 1 & 5.
Discoides.—Gauthier, V., 1; Lambert, J., 1.
Disodile.—Pampaloni, L., 1.
Dissacus.—Boule, M., 2.
Ditremaster.—Gauthier, V., 1.
Ditremaria.—Etheridge, R., Fil., 2.
Djebel Amour (Algeria).—Ritter, E., 1.
Dobrudscha (Rumania).—Butureanŭ, V. C., 3.
Docca (Tuscany).—Trabucco, G., 1.
Dolerite, Glyn Ceiriog.—Moore, E. C., 1.
——, Ireland.—Joly, J., 6.
——, Mysore.—Wetherell, E. W., 2.
——, Transvaal.—Sawyer, A. R., 3.
Dolichorhynchops.—Williston, S. W., 1 & 4.
Doliochœrus.—Depéret, C., 3.
Doliolina-limestone, China.—Schellwien, E., 1.
Doller R. (Alsace-Lorraine).—Deecke, W., 3; Van Werveke, L., 14.
Dolomite, Alsace-Lorraine.—Schuller, J., 1.
——, Crete.—Cayeux, L., 6.
——, Hanover.—Kœnen, A. von, 2.
——, Lugano Alps.—Bistram, F. von, 2.
——, origin of.—Pfaff, F. W., 1.
——, Simplon Tunnel.—Spezia, G., 1.
——, Tasmania.—Pettard, W. F., 1.

Dolomite, Tyrol.—Geyer, L., 1.
——, Vosges.—Delépine, G., 1.
Dolomitization, de-. — Teall, J. J. H., 2.
Dombes (Ain, &c.).—Boistel, A.
Domes, Indiana Silurian.—Kindle, E. M., 1.
Domeykite.—Kœnig, G. A., 1; Stevanovič, S., 1.
Dominica (W.I.).—Morris, Sir D., 1; Sapper, K., 8.
Donard (Co. Wicklow).—Seymour, H. J., 2.
Donetz Basin (Russia).—Borisiak, A., 1; Yakovlev, N., 4; Zalesski, M., 1.
Donnybrook (Queensl.).—Cameron, W. E., 3.
Donon (Alsace-Lorraine).—Brunzel, K., 1.
Dopperlite.—Moss, R. J., 1.
Dordogne (France).—Martel, E. A., 4; Moissan, H., 2; Rivière, E., 1.
Dorset.—Andrews, W. R., 1; Darwin, H., 1; Hudleston, W. H., 1; Lang, W. D., 1; Woodward, H. B., 10.
Dosinia.—Oppenheim, P., 6.
Doubs (France).—Lamothe, R. de, 2; Van den Broeck, E., 11.
Down, Co. (Ireland).—Andrews, M. K., 1; Cole, G. A. J., 10; Seymour, H. J., 3.
Doveholes (Derby).—Dawkins, W. B., 1.
Drakenberg Mts. (S. Africa).—Schwarz, E. H. L., 2.
Dreissensia.—Pavlov, P. S., 2.
—— -beds, Rumania.—Sevastos, R., 1.
Drepanura.—Monke, H., 1.
Drift, Crewe.—Edwards, W., 1.
—— ice, transport by.—Prest, W. H., 1.
——, Iowa.—Macbride, T. H., 1.
——, Jurassic corals in N. German.—Oppenheim, P., 4.
——, Long Island (N.Y.).—Fuller, M. L., 3.
——, Prussia (E. & W.).—Ungern-Sternberg, E. von, 1.
——, Sylt, Amrum, & Heligoland. — Martin, J., 1.
——, Thames Valley.—Pocock, T. I., 1.
——. *See also* Lœss, Quaternary, &c.
Drillia.—Casey, T. L., 1.
Drummahair (Leitrim).—Cole, G. A. J., 6 & 7.
Druse-mineral, mica as a.—Sachs, A., 1.
Dryopithecus.—Abel, O., 2.
Dryptosaurus.—Lambe, L. M., 1.
Dublin, (Ireland).—Cole, G. A. J., 3 & 4; Egan, F. W., 1; Lamplugh, G. W., 6; Wright, J., 1 & 2; Wright, W. B., 1.
Ducktown (Tenn.).—Kemp, J. F., 3.
Dufrenoysite.—Pettard, W. F., 1; Solly, R. H., 2.
Dumfriesshire (Scotland).—Wright, J., 1.
Dumortierite.—Ford, W. E., 3.
Dundasite.—Pettard, W. F., 1.
Dundee (Forfar).—Durham, J., 1.
Dunderland (Norway).—Vogt, J. H. L., 2.
Dunes, Belgium.—Van Ertborn, O., 11.
——, Bermuda Is.—Verrill, A. E., 2 & 3.
——, Gascony.—Durègne, E., 1.
——, Karachi.—Oldham, R. D., 2.
——, Pas-de-Calais.—Gosselet, J., 5.
——, Sahara.—Hochreutiner, B. P. G., 1.
——, Schleswig.—Reinke, J., 1.
Dunstable Downs (Beds).—Hopkinson, J., 1.
Duppau (Bohemia).—Bauer, F., 1.
Durango (Mexico).—Rangel, M. F., 1; Witherbee, T. F., 1.
Durham.—Abbott, G, 1; Clough, C. T., 1; I'Anson, J. C., 1; Lebour, G. A., 1.
Dust, African origin of 'red rain.'—Thorpe, T. E., 1.
——, deposition of.—Russell, W. J., 1 & 2.
——, desert.—Flores, E., 1.
—— -fall, Canary Is.—Tacquin, A., 1; Portugal.—Choffat, P., 4; Victoria (Austral.).—Chapman, F., 2; falls recorded.—Chauveau, A. B., 1; Forel, F. A., 3.
——, New-South-Wales meteoric. — Liversidge, A., 1.
—— storms.—Marshall, P., 1.
——, volcanic.—Griffith, A. B., 1; *see also* Red rain, Volcanic, &c.
Düsseldorf (Rh.-Prussia).—Habets, A., 1; Hœrhanger, J., 1.
Dutch East Indies. *See* Celebes, &c.
Dutch Guiana (S. Am.).—Du Bois, G. C., 1.
Dwyka Conglomerates, Transvaal. — Sawyer, A. R., 3.
Dyctyarœa.—Osasco, E., 1.
Dykes, I. of Man.—Lomas, J., 1.
——, Mysore ultrabasic.—Wetherell, E. W., 3.
——, St. Minver coast.—Fox, H., 2.
Dyrosaurus.—Stefano, G. de, 2.

Ealing (Middlesex).—Brown, J. A., 1.
Earth, advent of life on.—Meunier, S., 17; Woodward, H, 12.
——, age of.—Joly, J., 4; Mackie, W., 5.
——, axis of.—Folie, F., 1 & 2; Lagrange, C., 1; Very, F. W., 1.
——, crust of.—Courty, G., 1; Fleischer, A., 1; Geikie, Sir A., 2; Milch, L., 1; Prinz, W., 2 & 4; Rothpletz, A., 1; Van den Broeck, E., 4.
——, evolution of.—Anon. 37.
——, figure of the.—Jeans, J. H., 1; Sollas, W. J., 1.
——, internal heat.—Romanes, G., 1.
——, interior, thermal waters &.—Hoffmann, J. F., 1.
—— movements. *See* Land, changes of level.
—— physics.—Milne, J., 1; Tacquin, A., 2.
——, planetary system &.—Borredon, G., 1–5.

Earth, structure of.—Reade, T. M., 2.
——, surface of. — Curtis, G. C., 2; Dryer, C. R., 1.
——, ——, temperature.—Hoffmann, J. F., 2.
——, volcanoes & figure of.—Lallemand, C., 1.
——. *See also* Gravity, &c.
Earthquake Conference, Strasburg. — Gerland, G., 3; Lancaster, A., 1.
—— Observatories, German.—Credner, H., 1; Gerland, G., 1 & 2; Weigand, B., 1.
—— records.—Lippmann, G., 1; Milne, J., 3.
——, Smyrna.—Yung, —, 1.
—— waves.—Harbœ, H. G., 1.
—— zones.—Miron, F., 1.
Earthquakes, America (Central).—Bœse, E., 1; Hay, Sir J. D., 1; Rockstroh, E., 1.
——, Assam.—Oldham, R. S., 1.
——, Austria.—Hœrnes, R., 7; Láska, W., 1; Mazelle, E., 1; Mojsisovics, E. von, 1 & 3; Schwab, P. F., 1.
——, Bavaria.—Reindl, J., 1.
——, Bermuda Is.—Verrill, A. E., 1 & 2.
——, Bohemia.—Mojsisovics, E. von, 3.
——, Caucasus, &c.—Andersson, F., 1; Mushketov, J., 1.
——, Ceram.—Rudolph, E., 1.
——, Colorado.—Lay, H. C., 1.
——, Cyprus.—Agamennone, G., 1.
——, distribution of.—Lallemand, C., 1; Milne, J., 1–6; Montessus de Ballore, F. de, 3; Tanakadate, A., 1.
——, Europe.—Sturm, F., 1.
——, Galicia.—Milne, J., 2.
——, Hungary.—Lajos, F., 1.
——, Italy.—Meli, R., 1; Sabatini, V., 1.
——, Japan.—Imamura, A., 1; Omori, F., 1–4; Rudolph, E., 2.
——, Kashmir.—Eckenstein, O., 1.
——, Kimberley (Cape Colony).—Sutton, J. R., 1.
——, Midlands.—Anon., 28.
——, New Zealand. — Farr, C. C., 2; Hogben, G., 1.
——, origin of.—Montessus de Ballore, F. de, 2–4.
——, rock-rigidity &.—Kusakabe, S., 1 & 2.
——, Sweden.—Kjellén, R., 1.
——, Turkey.—Hœrnes, R., 3.
——, volcanic eruptions & [W.I., &c.].—Anon., 2 & 3.
——, Württemberg.—Schmidt, A., 2.
——. *See also* Seismology.
Earths, rare.—Barker, G. F., 1; Pratt, J. H., 3.
East Bergholt (Suffolk). — Whitaker, W., 1.
Eastonia.—Dollfus, G. F., 6.
Ecca Beds.—Seward, A. C., 2.
Eccyliomphalus.—Weller, S., 2.
Echinanthus.—Martelli, A., 1.
Echinocorys.—Airaghi, C., 2; Arnaud, H., 1; Lambert, J., 3.
Echinogale.—Depéret, C., 3.
Echinoidea, Cretaceous.—Airaghi, C., 2; Arnaud, H., 1; Cotteau, G., 1; Fourtau, R., 1; Gauthier, V., 1 & 3; Lambert, J., 1–3; Loriol, P. de, 2; Pellat, E., 2; Savin, L., 1; Wollemann, A., 1.
——, Jurassic.—Gauthier, V., 2; Loriol, P. de, 2.
——, Tertiary.—Checchia-Rispoli, G., 1; Gauthier, V., 1; Kossmat, F., 1; Loriol, P. de, 2; Martelli, A., 1; Nelli, B., 1; Oppenheim, P., 6; Savin, L., 1.
Echinolampas.—Checchia-Rispoli, G., 1; Gauthier, V., 1; Martelli, A., 1.
Echinopedina.—Loriol, P. de, 2.
Eclogite.—Duell, E., 1; Hezner, L., 1.
Eden Valley (Cumberland, &c.).—Burns, D., 1; Kendall, P. F., 1.
Edentata, fossil & recent.—Grevé, C., 1.
——, Tertiary.—Scott, W. B., 1.
Edestus.—Karpinski, A., 1; Newton, E. T., 1.
Edinburgh (Scotland). — Goodchild, J. G., 10; Hepburn, D., 1; Traquair, R. H., 2.
Edmondia.—Weller, S., 2; Yakovlev, N., 4.
Education, geology &.—Ellis, J. E., 1; Lapworth, C., 2; Verri, A., 2; Watts, W. W., 2.
Eel, Scandinavian Chalk.—Woodward, A. S., 2.
Eggegebirge (Westphalia).—Stille, H., 2 & 3.
Eggenburg (Lr. Austria).—Fuchs, T., 1; Toula, F., 4.
EGLESTON, T. *See Obit.*, Kunz, G. F., 1.
Eglestonite.—Moses, A. J., 2.
Egypt.—Alford, C. J., 1; Andrews, C. W., 1–3 & 5; Ball, J., 1 & 2; Barron, T., 1; Beadnell, H. J. L., 1 & 2; Blanckenhorn, M., 2, 3, & 4; Cadell, H. M., 3; Dacqué, E., 1; Felix, J., 3; Fourtau, R., 3 & 4; Lankester, E. R., 1 & 2; Linck, G., 6; Lucas, A., 1; Neilson, J., 1; Oppenheim, P., 1; Pachundaki, D. E., 1; Stromer, E. von, 2, 4, & 5.
Eichenberg (Hesse).—Beyschlag, F., 1.
Eisach Valley (Tyrol).—Guenther, S., 1.
Eisenbach (Rh.-Bavaria).—Schalch, F., 1.
Ekaterinoslav Gov. (Russia).—Domherr, W., 1.
Ekbainacanthus.—Yakovlev, N., 2.
Elasmocœnia.—Felix, J., 2.
Elaterite.—Cumming, A. C., 1.
Elba, I. of.—Achiardi, G. d', 1 & 3.
Electricity, mineral vein-finding by.—Dickinson, J., 1.
Elephants, ancestry of.—Lydekker, R., 1.
——, pigmy, Cyprus.—Bate, D. M. A., 1.
Elephas.—Dawkins, W. B., 1; Flores, E., 2; Knight, W. C., 3; Portis, A., 1; Rutot, A., 5; Stingelin, T., 1.
Elgin (Scotland).—Boulenger, G. A., 1.

Elgin Sandstones.—Mackie, W., 3.
Elk, Quaternary.—Newton, E. T., 2.
Elkhorn (Mont.)—Weed, W. H., 7.
Ellipsoglandulina.—Silvestri, A., 1.
Elonichthys.—Eastman, C. R., 1.
Elotherium.—Bush, L. P., 1.
Emarese (Piedmont).—Brugnatelli, L., 3.
Embolophorus.—Case, E. C., 1 & 2.
Emerald.—Prinz, W., 1.
Emilia (Italy).—Corti, B., 1; Flores, E., 2; Nelli, B., 1; Sangiorgi, D., 1.
Ems (Nassau).—Fresenius, H., 1.
Enargite.—Stevanović, S., 1.
Enchelurus.—Woodward, A. S., 8.
Enchodus. — Gorjanović - Kramberger, K., 1; Leriche, M., 1; Woodward, A. S., 8.
Endianaulax & *Endiatænia.*—Chartron, C., 1.
Engadine (Switzerland). — Delebecque, A., 1.
Engineering, geology &. — Hawkshaw, J. C., 1.
England, Midlands.—Frech, F., 1.
—— (S.).—Bullen, R. A., 1.
—— (S.E.).—Jukes-Browne, A. J., 6; Monckton, H. W., 5; Rutot, A., 4.
——. *See also* Great Britain, Kent, &c.
Enköping (Svealand).—Sernander, R., 3.
Ennsthal (U. Styria).—Redlich, K. A., 1.
Ensis.—Dollfus, G. F., 6.
Entelodon.—Bush, L. P., 1.
Eocene, Belgium.—Van Ertborn, O., 1, 2, & 6.
——, Berne.—Gerber, E., 1.
——, Cameroons.—Oppenheim, P., 1.
——, Crete.—Cayeux, L., 3.
——, Sokotra.—Kossmat, F., 1.
——. *See also* Tertiary, &c.
Eochelone.—Dollo, L., 1.
Eoliths, Hampshire, &c.—Bullen, R. A., 1; Ireland.—Bennett, F. J., 1; Knowles, W. J., 1; London.—Bennett, F. J., 1.
Epiaster.—Gauthier, V., 1; Kossmat, F., 1; Lambert, J., 1.
Epidote.—Neuwirth, V., 1; Zambonini, F., 3.
Epprechtstein (Bavaria).—Weber, M., 1.
Epsomite.—Schaller, W. T., 1.
Equi Valley (Tuscany).—Elsden, J. V., 9.
Equisetum.—Knowlton, F. H., 1.
Equus.—Dawkins, W. B., 1; Munro, R., 1; Sernander, R., 1.
Erba (Lombardy).—Flores, E., 3.
Erinaceus.—Wortman, J. L., 1.
Eriphyla.—Burckhardt, C., 1.
Eriptycha.—Cossmann, M., 1.
Erisiphites.—Pampaloni, L., 1.
Erismacanthus.—Eastman, C. R., 1.
Erith (Kent).—Salter, A. E., 1.
Erosion, Austrian Tertiary.—Fuchs, T., 3.
——, coast.—Lakes, A., 12.
——, drift-ice.—Prest, W. H., 1.
——, river.—Ball, J., 1.
Erratic boulders.—Châtelet, C., 1.
Erratic deposits, Geneva.—Duparc, L., 3.
Erratics, Great Britain & Ireland.—Kendall, P. F., 2.
Eruptions. *See* Volcanic eruptions.
Eryops.—Case, E. C., 2.
Erzberg (Carinthia).—Baumgærtel, B., 1; Taffanel, J., 1.
Erzgebirge (Saxony).—Gæbert, C., 1.
Erzgebirge (Transylvania).—Gesell, A., 1; Pálfy, M. von, 1; Telegd, L. R. von, 1.
Escarpelle (Pas-de-Calais). — Deville, Ste.-Cl., —, 1.
Escharopora.—Weller, S., 2.
Esino (Lombardy).—Airaghi, C., 1.
Eskers, New York State.—Comstock, F. M., 3.
——, origin of.—Crosby, W. O., 1.
——, Svealand.—Sernander, R., 3.
Essequibo R. (Brit. Guiana).—Harrison, J. B., 1.
Essex.—Holmes, T. V., 1–3; Howe, J. A., 2; Salter, A. E., 1; Woodward, H. B., 13.
Essexite, Quebec.—Adams, F. D., 3.
Estuaries, S. Russian.—Sokolov, N., 1.
Étampes (Seine-et-Oise).—Grossouvre, A. de, 1; Meunier, S., 2.
Etaples (Pas-de-Calais).—Gosselet, J., 5.
Etaves (Aisne).—Rabelle, —, 1.
ETHERIDGE, R. *See Obit.* Anon., 6; Woodward, H. B., 8.
Etna (Sicily).—Kewitsch, G., 1.
Etoblattina.—Sellards, E. H., 1.
Étoile Massif (Provence).—Frech, F., 1.
Etrœungt-limestone (Rh.-Prussia). — Drevermann, F., 2.
Eubœa I. (Greece).—Deprat, J., 1–2.
Eucœnus.—Melander, A. L., 1.
Euchondria.—Drevermann, F., 2.
Eucinepeltus.—Scott, W. B., 1.
Euclastes.—Lœrenthey, E., 2.
Eucyclus.—Chartron, C., 1.
Eudictyon.—Bistram, A. von, 1.
Euganean Hills (Venetia).—Squinabol, S., 2.
Euplectella.—Nelli, B., 1.
Euphotide erratics, Geneva.—Duparc, L., 3.
Eure-et-Loir (France).—Dollfus, G. F.
Europe.—Frech, F., 2; Stolley, E., 1; Toula, F., 3.
——, glaciation & plants.—Anon., 35.
European & Persian fossil-faunas.—Douvillé, H., 2.
Eurychilina.—Weller, S., 2.
Eurydesma.—Bœhm, G., 1.
Euspatangus.—Gauthier, V., 1.
Euthriofusus.—Cossmann, M., 2.
Evansite.—Pettard, W. F., 1; Vernadski, V. S., 3.
Evergem (Flanders).—Brouwer, M. de, 1.
Evolution, Brachiopoda.—Cumings, E. R., 1.
——, climatic.—Manson, M., 2; Wieland, G. B., 2.

Evolution, earth &.—Anon., 37.
——, extinction &.—Andrews, C. W., 2.
——, geology &.—Hutton, F. W., 1; Meunier, S., 10.
——, palæontology &.—Lydekker, R., 2 & 3; Meunier, S., 17; Woodward, H., 12.
Exelissa.—Chartron, C., 1.
Exhibition, Düsseldorf, 1902. — Hœrhanger, J., 1; Paris, 1900.—Schafarzik, F., 7; Szontagh, T. von, 1; *see also* Building-stones.
Exogyra.—Antula, J., 1; Burckhardt, C., 1; Paulcke, W., 1; Shattuck, G. B., 1.
'Exotic blocks,' Hundés.—Krafft, A. von, 1.
Extinction, evolution &.—Andrews, C. W., 2.
EXTON, HUGH. *See Obit.*, Anon., 7.
Eyre, Lake (S. Austral.).—Etheridge, R., Fil., 2.

Facetted pebbles. *See* Pebbles, Wind-worn, &c.
Fairmont (W. Va.).—Haas, F., 1.
Falconida.—Regàlia, E., 1.
Fallotia.—Douvillé, H., 3.
Falmouth (Cornwall).—Hill, J. B., 1.
Faringdon (Berks).—Lamplugh, G. W., 1.
Fascinella.—Fœrster, B., 5.
Fassa Valley, (Tyrol).—Fabian, K., 1; Gordon, M. M. O., 1.
Fatrakriván Mts. (Hungary).—Uhlig, V., 2.
Faujasina.—Millett, F. W., 1.
Faults, Harz.—Hecker, O., 3.
——, Liége.—Fourmarier, P., 3.
——, origin of.—Montessus de Ballore, F. de, 2.
——, Poitiers.—Welsch, J., 1.
——, Ridgeway.—Darwin, H., 1.
——, Tainton Downs.—Walford, E. A., 1.
Favosites.—Weller, S., 2.
Fayûm (Egypt).—Andrews, C. W., 1–3 & 5; Lankester, E. R., 1 & 2; Neilson, J., 1; Stromer, E. von, 2, 4 & 5.
Feildenia.—Mœller, H., 1.
Felis.—Ameghino, F., 2.
Felsite, Dartmoor.—Worth, R. H., 1.
Felspars.—Baumhauer, H., 4; Fedorov, E., 2; Fels, G., 1; Ries, H., 1; Spurr, J. H., 2; Tertsch, H., 1; Winchell, N. H., 1.
Fenestella.—Chapman, F., 1.
Ferdinandea I. (Mediterranean). — Meunier, S., 5.
Fernando de Noronha (S. Atlantic).—Branner, J. C., 4.
Ferru, Mte. (Sardinia). — Dannenberg, A., 1.
Fichtelgebirge (Bavaria).—Weber, M., 1.
Fiji Is. (Pacific).—Bonney, T. G., 10; Sherlock, R. L., 1; Skeats, E. W., 1.
FILHOL, H. *See* Pettit, A., 1.
Finland.—Borgstrœm, L. H., 1; Rosberg, J. E., 1.
Finne Mts. (Thuringia).—Henkel, L., 2; Schuetze, E., 1.
Fireclay, erratic stones in Horbury.—Sutcliffe, R., 1.
Fishes, Carboniferous.—Eastman, C. R., 1; Newton, E. T., 1; Traquair, R. H., 2; Wellburn, E. D., 1; Woodward, A. S., 5, 6, & 11.
——, coal of fossil.—Sollas, W. J., 3.
——, Cretaceous.—Branner, J. C., 1; Leriche, M., 1; Woodward, A. S., 2 & 8.
——, Devonian. — Claypole, E. W., 1; Dollo, L., 4; Fox, H., 1; Gosselet, J., 6; Sollas, W. J., 3; Traquair, R., H., 1 & 3.
——, Jurassic.—Sauvage, H. E., 1 & 2.
——, Permo-Carboniferous.—Karpinski, A., 1; Simoëns, G., 2; Van den Broeck, E., 2; Van de Wiele, C., 1; Woodward, A. S., 3 & 10.
——, Silurian. — Gorjanović - Kramberger, K., 1.
——, subfossil.—Eastman, C. R., 2.
——, Tertiary.—Coomáraswámy, A. K., 3; Gorjanović-Kramberger, K., 1; Kæch, M., 1; Koch, A., 4; Lucas, F. A., 5; Nelli, B., 1; Sangiorgi, D., 1.
——, Triassic.—Deecke, W., 2; Eaton, G. F., 1; Frech, F., 1; Yakovlev, N., 2.
Fissodus.—Eastman, C. R., 1.
Fjords, Norway.—Monckton, H. W., 2 & 4.
Flabellina.—Schick, T., 1.
Flabellinella.—Liebus, A., 2.
Flabellum.—Oppenheim, P., 6.
Fläming (Brandenburg).—Lunstow, O. von, 1.
Flanders (Belgium).—Andrimont, R. d'; 1; Brouwer, M. de, 1; Stainier, X., 4; Van Ertborn, O., 1, 4, 6, 8, & 11.
Flathead Lake (Mont.).—Elrod, M. J., 1.
Fleims Valley (Tyrol).—Fabian, K., 1; Ippen, J. A., 4.
Flint, Kanawha black.—White, I. C., 1.
——, Norfolk.—Elsden, J. V., 5.
——, United States.—Ries, H., 1.
Florence (Tuscany).—Trabucco, G., 1.
Florida (U.S.A.). — Dall, W. H., 3; Vaughan, T. W., 1.
Fluid-inclusions.—Hunt, A. R., 6.
Fluorspar.—Hulyák, V., 1; Lenher, V., 1; Pratt, J. H., 7; Weber, M., 1; Zimmermann, R., 1.
Flysch, Biarritz.—Mayer-Eymar, C., 1.
——, Carpathian.—Zuber, R., 1.
——, Dalmatia.—Kerner, F., 4.
——, Montenegro.—Martelli, A., 2.
——, Salzburg.—Lorenz, J. von, 2.
——, Switzerland.—Kæch, M., 1.
Foggia Valley (Liguria).—Ristori, G., 2.
Foix (Ariège).—Carez, L., 7.

Font-de-Gaume (Dordogne).—Martel, E, A., 4.
Footprints, Triassic.—Beasley, H. C., 1 & 2; Hornstein, F., 1.
Foraminifera, Cambrian & Silurian.—Weller, S., 2.
——, Carboniferous.—Barrois, C., 3.
——, classification of.—Kemna, A., 1.
——, Cretaceous.—Douvillé, H., 3, 4, & 9; Holmes, W. M., 1; Liebus, A., 2.
——, Jurassic.—Deecke, W., 1; Munier-Chalmas, —, 1 & 2; Schick, T., 1.
——, Quaternary.—Reade, T. M., 1; Sherlock, R. L., 1; Wright, J., 1–3.
——, Tertiary.—Andreæ, A., 3; Douvillé, H., 1 & 3; Fornasini, C., 1 & 2; Gortani, M., 3; Haug, É., 2; Herrmann, A., 1; Mariani, M., 1; Martelli, A., 1; Millett, F. W., 1; Oppenheim, P., 6; Prever, P., 1; Schlumberger, C., 1 & 2; Silvestri, A., 1.
Foraminiferal ooze, Iowa Coal-Measures.—Udden, J. A., 1.
Forests, submerged.—Reade, T. M., 2.
Formations, classification of Tennessee.—Safford, J. M., 1.
Forno Avoltri. *See* Avoltri.
Fossarulus.—Pavlov, P. S., 2.
Fossiliferous Silurian, Ireland (N.E.).—Clark, R., 1.
Fossils, photography of.—Ingen, G. van, 1.
——, sectionizing.—Sollas, W. J., 2.
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Foxdale (I. of Man).—Bonney, T. G., 1; Lomas, J., 1.
Fox Hills (Surrey).—Monckton, H. W., 3.
‘Fram’ Arctic Expedition.—Anon., 29; Schei, P., 1; Sverdrup, O., 1.
Framont (Alsace-Lorraine).—Schweitzer, J., 1.
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——, Central massif.—Grossouvre, A. de, 5.
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Franche Comté (France).—Piroutet, M., 2.
Franceville (Colo).—Preston, H. L., 1.
Franconia (Bavaria).—Henkel, L., 3.
Frank (Alberta Terr.).—Brewer, W. M., 2; Lakes, A., 11.
Frankenberg (Cassel).—Denckmann, A., 2; Stelle, H., 4.
Frankenstein (Silesia).—Illner, —, 1,
Frankfort-on-Main (Germany), Senckenberg Natural History Museum.—Kinkelin, F., 2.
Frayssinet-le-Gélat (Lot).—Douvillé, H., 8; Gauthier, V., 3; Mouret, G., 2.
Fredericton (New Brunswick).—Chalmers, R., 1.
Freiberg (Moravia).—Remeš, M., 2.
Freiburg (Baden).—Keidel, H., 1.
Fresnoy (Aisne).—Rabelle, —, 1.
Fribourg (Switzerland).—Sarasin, C., 2.
Frisian Is. (Schleswig - Holstein).—Martin, J., 1.
Friuli district (Umbria).—Bortolotti, C., 1.
Frondicularia.—Liebus, A., 1; Schick, T., 1.
Frost, soils &.—Roberts, M., 1.
Fruits, seeds, &c. *See* Plants.
Fruskagora Mts. (Hungary).—Koch, A., 5.
Fuchsite.—Miers, H. A., 3.
Fucoids, Tertiary.—Lorenz, J. von, 2.
Fulgur.—Smith, B., 1.
Fulgurites, Nürnberg.—Spiess, E., 1.
Fullers' Earth, Mysore.—Primrose, A., 1.
——, United States.—Vaughan, T. W., 1.
Fumaroles, West Indies.—Sapper, K., 10.
Fungi, Carboniferous.—Renault, B., 2.
Furesö, Lake (Denmark).—Wesenberg-Lund, C., 1.
Furfooz (Namur).—Van den Broeck, E., 2.
Furtwangen (Baden).—Schalch, F., 3.
Furva Valley (Lombardy).—Hammer, W., 1.
Fusulina-limestone.—Fliegel, G., 1.; Gortani, M., 1–3.
Fusus.—Shattuck, G. B., 1.

Gabbro, Caucasus.—Lœwinson-Lessing, F., 1.
——, definition of.—Osann, A., 5.
——, Geneva erratics.—Duparc, L., 3.
——, Sudan.—Linck, G., 6.
——, Tasmania.—Twelvetrees, W. H., 12.
——, Tellina Valley.—Hecker, O., 2.
——, White Sea.—Fedorov, E., 1.
Gadolinite.—Davis, B. F., 1.
Gaines (Pa.).—Fuller, M. L., 1.
Galago.—Wortman, J. L., 1.
Galena, Sardinia.—Rimatori, C., 1.
Galgenberg (Württ.).—Engel, —, 1.
Galicia (Austria).—Friedberg, G., 1; Galloway, W., 1; Milne, J., 2; Rzehak, A., 1; Schrœter, A., 1; Szajnocha, W., 1; Volz, W., 1; Zuber, R., 1.
Galloway's Soufrière, Montserrat.—Sapper, K., 6.
Galls, fossil plant.—Trotter, A., 1.
Ganbirretia.—Gauthier, V., 2.
Gard (France).—Pellat, E., 1.
Gargano, Mte. (Venetia).—Checchia-Rispoli, G., 1.
Garhwal (N.W. India).—Stephens, F. J., 1 & 2.
Garnet.—Fromme, J., 1; Kunz, G. F., 3; Zambonini, F., 2.
Garnetiferous sand, Olchon I.—Bagashov, I., 1.
——, volcanic rocks, Borrowdale.—Walker, E. E., 1.
Gas (natural), Indiana.—Leach, J. C., 1; Newsom. J. F., 1; Kansas.—Crane, W. R., 1; Yates, J. A., 1; Ohio, &c.—

Bownocker, J., 1 & 2; Oliphant, F. H., 2; Sussex. — Dixon, H. B., 1; Woodward, H. B., 11.
Gascony (France). — Arnaud, H., 1; Durègne, E., 1.
Gases in coal.—Bedson, P. P., 1; Broockmann, —, 1.
——, mineral waters with.—Moissan, H., 1; Moureu, C., 1.
——, Mt. Pelé fumaroles.—Gautier, A., 1.
Gaspereau Valley (N.S.).—Haycock, E., 1.
Gasteropoda, Cambrian (& phylogenic stage of).—Sardeson, F. W., 1.
——, Cretaceous. — Cossmann, M., 1; Dacqué, E., 1; Etheridge, R., Fil., 2; Franchis, F. de, 1; Longhi, P., 1; Moore, J. E. S., 1; Shattuck, G. B., 1; Stanton, T. W., 2; Weller, S., 1; Wollemann, A., 1.
——, Devonian.—Kayser, E., 1; Walther, K., 1; Weller, S., 2.
——, Jurassic.—Allen, H. A., 1; Bistram, A. von, 1; Chartron, C., 1; Moore, J. E. S., 1.
——, Quaternary. — Dennant, J., 3; Johnson, J. P., 1; Pilsbry, H. A., 1; Springer, A., 1; Stearns, R. E. C., 1; Wuest, E.. 3.
——, Silurian.—Weller, S., 2.
——, Tertiary.—Casey, T. L., 1; Cossmann, M., 2; Dall, W. H., 3; Dennant, J., 3; Fœrster, B., 5; Fuchs, T., 5; Hœrnes, R., 1; Hudleston, W. H., 1; Nelli, B., 1; Pavlov, P. S., 2; Pritchard, G. B., 2; Smith, B., 1; Vincent, E., 1.
——, Triassic.—Frech, F., 1.
Gastrioceras.—Smith, J. P., 1.
Gastrochæna.—Dollfus, G. F., 6.
Gattico (Piedmont).—Patrini, P., 1.
GAUDRY, J. A.—Woodward, H., 3.
Gaudryceras.—Yabe, H., 1.
Gaudryina.—Liebus, A., 2.
Gault, Merstham.—Holmes, W. M., 1.
——, Norfolk.—Elsden, J. V., 5.
——, Rumania.—Sevastos, R., 2.
Gavarnie (Hautes-Pyrénées). — Stuart-Menteath, P. W., 2.
Gavialis.—Koch, A., 4.
Gayton (Northants).—Thompson, B., 1.
Gbellan (Hungary).—Liebus, A., 2.
Gefell (Thuringia).—Zimmermann, E., 1.
Geierswalde (E. Prussia).—Michael, R., 3.
Geite.—Milne, J., 4.
Gellivara (Norrbotten).—Launay, L. de, 4.
Gems. *See* Precious stones.
Gemünden (Rh.-Pruss.).—Traquair, R. H., 1 & 3.
Geneva (Switzerl.).—Œberhardt, B., 1; Duparc, L., 3.
Genoa (Liguria).—Figari, L., 1.
Geodes, vein with quartz.—Squinabol, S., 2.
Geographical names of physical features. —Issel, A., 1.
Geography, geology &. — Holdich, Sir T. H., 1.
——, physical, &c., 1901, &c.—Morley, H. F., &c., 3; *see also* Physical.
'Geologica, bibliographia.' — Mourlon, M., 3; Van den Broeck, E., 14.
Geological chronometer.—Bulman, G. W., 1.
—— Congress. *See* Congress.
—— literature, 1900–1902.—Toula, F., 3; 1901, &c.—Morley, H. F., 2.
—— ——, Alsace-Lorraine, 1580–87.—Schumacher, E., 1; 1888–89.—Van Werveke, L., 6.
—— ——, Canada, 1901.—Ami, H. M., 5.
—— ——, England (N.), 1900.—Sheppard, T., 4.
—— ——, Italy, 1901.—Bonarelli, G., 1.
—— ——, Switzerland, 1901.—Schardt, H., 6.
—— ——, Württemberg & Hohenzollern.—Schuetze, E., 2.
—— map before 1850, Sweden.—Lœnborg, S., 1.
—— models, Apuan Alps.—Sacco, F., 3.
—— nomenclature, Nova Scotian. — Fletcher, H., 1; N. American.—Weeks, F. B., 1.
—— papers, Devonshire Association, 1862–1902.—Hamling, J. G., 1.
—— photographs.—Watts, W. W., 3; *see also* Photography.
—— Society, medals, &c.—Lapworth, C., 1 & 2; Museum.—Blake, J. F., 1.
—— ——, America.—Fairchild, H. Le R., 1; France.—Carez, L., 2; Vidal, L. M., 1; German. — Beyschlag, F., 1; Denckmann, A., 2; Stille, H., 3 & 4; Hungary.—Koch, A., 1; Schafarzik, F., 2; Italy.—Capellini, G., 1; Clerici, E., 1; Pellati, N., 1.
—— Survey, Algeria.—Ficheur, E., 1.
—— ——, Alsace-Lorraine. — Benecke, E. W., 3 & 6.
—— ——, Australia (W.).—Maitland, A. G., 2.
—— ——, Austria.—Tietze, E., 1–4; Stache, G., 1.
—— ——, Belgium.—Mourlon, M., 1; Van den Broeck, E., 5.
—— ——, Bohemia.— Počta, P., 1.
—— ——, Canada.—Bell, R., 1; Dawson, G. M., 1; laboratory.—Hoffmann, G. C., 2.
—— ——, Cape Colony.—Corstorphine, G. S., 1; Rogers, A. W., 1; Schwarz, E. H. L., 1 & 2.
—— ——, Egypt.—Barron, T., 1.
—— ——, England & Wales. — Allen, H. A., 1; Dakyns, J. R., 3; Fox-Strangways, C., 1; Jentzsch, A., 1; Jukes-Browne, A. J., 6; Teall, J. J. H., 3 & 4; Reid, C., 2–7; Strahan, A., 1–6.
—— ——, France.—Michel-Lévy, A., 1.

Geological Survey, Hesse. — Lepsius, R., 1.
—— ——, Hungary. — Bœckh, J., 1; laboratory report, 1900.—Kalecsinsky, A. von, 1.
—— ——, India.—Anon., 16; Holland, T. H., 3.
—— ——, Indiana.—Blatchley, W. S., 1, 2, 3; Iowa.—Calven, S., 1.
—— ——, Ireland.—Egan, F. W., 1; Jentzsch, A., 3; Lamplugh, G. W., 6; Teall, J. J. H., 3 & 4.
—— ——, Japan.—Inouye, K., 1; Kanehara, N., 1; Kochibe, T., 1; Ogawa, T., 1; Senkino, S., 1.
—— ——, Minnesota.—Winchell, N. H., 2.
—— ——, Mysore.—Smeeth, W. F., 1.
—— ——, Nebraska.—Barbour, E. H., 1.
—— ——, Prussia & Thuringia.—Beyschlag, F., 2.
—— ——, Queensland.—Dixon, R., 1.
—— ——, Russia.—Derjavin, A., 1.
—— ——, Saxony.—Wagner, P., 1.
—— ——, Scotland.—Jentzsch, A., 3; Teall, J. J. H., 3 & 4.
—— ——, United States of America.—Anon., 27; Walcott, C. D., 1, 2, & 6.
—— surveying.—Hobbs, W. H., 5.
—— terms.—Bonney, T. G., 5.
—— text-books. — Barré, O., 1; Charpentier, H., 1; Frech, F., 1 & 2; Geikie, Sir A., 2; Lapparent, A. de, 10; Mercalli, G., 1; Weinschenk, E., 1.
—— time, life-distribution in.—Woodward, H., 12.
—— topography, influence of gypsum & salt on.—Ochsenius, C., 4.
'Geologisches Centralblatt.'—Coomáraswámy, A. K., 1.
Geologists' Association, N. Staffordshire excursion.—Elsden, J. V., 8.
Geology, agricultural. — Marr, J. E., 1; Woodward, H. B., 1; *see also* Soils, &c.
——, Alpine.—Zuercher, P., 1.
——, American (N.).—Walcott, C. D., 5; Weeks, F. B., 2.
——, applied. — Angelis d'Ossat, G. de, 6; Charpentier, H., 1; Issel, A., 5; Meli, R., 2; Watts, W. W., 2.
——, British Association, 1903.—Monckton, H. W., 1.
——, chemistry &.—Gans, R., 1.
——, education &. — Ellis, J. E., 1; Lapworth, C., 2; Verri, A., 2; Watts, W. W., 2.
——, engineering &.—Hawkshaw, J. C., 1.
——, evolution &.—Hutton, F. W., 1; Wiik, F. J., 1.
——, experimental.—Avebury, Lord, 1; Guébhard, A., 1; Reade, T. M., 2.
——, geography &.—Holdich, Sir T. H., 1.
——, Germany.—Lepsius, R., 2.
Geology, gravity &.—Lapparent, A. de., 9.
——, International bibliography of. — Simoëns, G., 3; Van den Broeck, E., 3.
——, New Zealand.—Hamilton, A., 1.
——, Nova Scotia.—Ells, R. W., 1.
——, photography &. — Ingen, G. van, 1; Watts, W. W., 3; Woodward, H., 8.
——, plants &.—Smith, W. G., 1.
——, Rhenish Schiefergebirge, 1581–1900.—Kaiser, E., 1.
——, R. School of Engineers, Rome.—Meli, R., 2.
——, Saxony, 1494.—Wagner, P., 1.
——, Wellington College.—Blundell, G. E., 1.
Geophysical phenomena.—Milne, J., 1; Tacquin, A., 2.
—— station, Quenast.—Lagrange, E., 1.
Georgetown (Colo.).—Crosby, W. O., 2.
Georgia (U.S.A.). — Eckel, E. C., 1; McCallie, S. W., 2; Vaughan, T. W., 1.
Geothermal gradient, Michigan.—Lane, A. C., 2.
Gephyrostegus.—Jækel, O., 3.
Geraphrynus.—Melander, A. L., 1.
Gerihorn (Berne).—Douvillé, H., 10.
German African Colonies.—Macco, A., 1.
Germany. — Frech, F., 1 & 2; Gerland, G., 2.
—— (E.).—Lepsius, R., 2.
—— (N.).—Jentzsch, A., 1 & 2; Kœnen, A. von, 1; Lamplugh, G. W., 2; Lepsius, R., 2; Ochsenius, C., 1.
——. *See also* Hesse, &c.
Gerrard's Cross (Bucks).—Howe, J. A., 1.
Gervillia.—Bistram, A. von, 1.
Gervilliopsis.—Shattuck, G. B., 1.
Gesso Valley (Piedmont).—Roccati, A., 1.
Gewitsch (Moravia).—Tietze, E., 1.
Gibbsite.—Pettard, W. F., 1.
Gibraltar.—Acland, H. D., 1.
Gien (Loiret).—Grossouvre, A. de, 4.
Giessen (Hesse).—Parkinson, H., 1.
Gilgenberg (E. Prussia).—Michael, R., 3.
Ginkgo.—Knowlton, F. H., 1; Mœller, H., 1.
Gippsland (Victoria).—Dennant, J., 2.
Girvan (Ayrshire).—Reed, F. R. C., 5.
Gismondite.—Thugutt, St. I., 1.
Giza, Pyramids of (Egypt).—Beadnell, H. J. L., 1.
Glacial action, Mission Valley (Mont.).—Elrod, M. J., 1.
—— conglomerates, Victoria. — Hart, T. S., 1.
—— deposits, Alsace-Lorraine. — Van Werveke, L., 13 & 14.
—— ——, Brandenburg.—Linstow, O. von, 1.
—— ——, California.—Hershey, O. H., 5.

Glacial deposits, Cheshire.—Edwards, W., 1.
—— ——, classification of N. European.—Stolley, E., 1.
—— ——, Jura.—Bourgeat, —, 1–3.
—— ——, Lancashire.—Reade, T. M., 1.
—— ——, Nova Scotia.—Haycock, E., 1.
—— ——, Permo-Carboniferous, Victoria (Austral.).—Kitson, A. E., 2.
—— Drift, Co. Dublin.—Lamplugh, G. W., 6.
—— periods.—Bœttcher, —, 1; Chamberlin, T. C., 2; Longe, F. D., 1; plants &.—Anon., 35.
—— striæ, Hanover.—Menzel, H., 2; simulated.—Van den Broeck, E., 1.
Glaciated boulders, Permo-Carboniferous, Victoria.—Thiele, E. O., 1.
—— pebbles, Pas-de-Calais. — Gosselet, J., 5; *see also* Pebbles.
Glaciation, Alsace-Lorraine. — Deecke, W., 3.
——, Baden.—Steinmann, G., 2.
——, Carpathians.—Martonne, E. de, 1.
——, Cheviot Hills.—Kendall, P. F., 3.
——, Colorado.—Lay, H. C., 1.
——, Condroz massif.—Simoëns, G., 1.
——, Corsica.—Castelnau, P., 1.
——, Dauphiné.—Martin, D., 1.
——, Dublin Co.—Wright, W. B., 1.
——, Europe.—Frech, F., 2.
——, Hebrides.—Knight, G. A. F., 1.
——, Himalayas.—Freshfield, D. W., 1.
——, Jordan Valley.—Libbey, W., 1.
——, Klamath Mts. — Hershey, O. H., 1–5.
——, Magdeburg.—Wahnschaffe, F., 1.
——, Massachusetts.—Taylor, F. B., 1.
——, North Haven I. (Me.).—Willis, B., 2.
——, Norway.—Monckton, H. W., 3; *see also* Scandinavia.
——, Orange-River Colony. — Barrett-Hamilton, G. E. H., 1.
——, Salt-Range Permian.—Koken, E., 4.
——, Saxony.—Riedel, O., 1.
——, Scandinavia. — Ussing, N. V., 1; *see also* Norway, &c.
——, Skye, I. of.—Harker, A., 1.
——, Styria.—Dreger, J., 1.
——, Tasmania.—Gregory, J. W., 1.
——, Tyrol.—Guenther, S., 1; Hess, H., 2.
——, Valais.—Tornquist, A., 2.
——, Vosge Mts.—Van Werveke, L., 13.
——, Wyoming.—Salisbury, R. D., 1.
Glacier-lakes, America (N.). — Upham, W., 3 & 4.
—— ——, Yorkshire.—Clark, J. E., 1.
——-movement.—Crammer, H., 2.
Glaciers, Antarctic.—Arçtowski, H., 2.
——, Colorado.—Fenneman, N. M., 2.
——, Dauphiné & Savoy.—Belloc, E., 1; Girardin, P., 1.
——, International Commission. — Finsterwalder, S., 1; Forel, F. A., 4; Kilian, W., 1; Rabot, C., 1 & 2.
Glaciers, Mont-Blanc (1780).—Forel, F. A., 1.
——, Monte Rosa.—Dainelli, G., 2.
——, Norway.—Rekstad, J., 1.
——, Simplon massif.—Schardt, H., 4.
——, Spitsbergen.—Baun, A., 1.
——, United States.—Elrod, M. J., 1; Reid, H. F., 1.
——, variation of. — Engell, M. C., 1; Finsterwalder, S., 1; Forel, F. A., 1 & 4; Girardin, P., 1; Kilian, W., 1 Rabot, C., 1 & 2; Reid, H. F., 1.
——, Vosges.—Meunier, S., 9.
Glaciology, 1901–1902.—Rabot, C., 1 & 2.
Glamorganshire. — Jordan, H. K., 1; Small, E. W., 1; Strahan, A., 2 & 5.
Glandina.—Fœrster, B., 5.
Glandulina.—Silvestri, A., 1.
Glarus (Switzerland). — Frech, F., 1; Penck, A., 1.
Glaserite.—Van't Hoff, J. H., 3.
Glaslyn (N. Wales).—Dakyns, J. R., 1.
Glassy igneous rocks, devitrification in.—Bonney, T. G., 12.
Glauber's salt deposits, Caspian Sea.—Ochsenius, C., 5.
——, Liguria.—Franchi, S., 1.
Glaucophanic rocks, Alps (W.).—Rosati, A., 1.
Glencoe (Argyle).—Kynaston, H., 1.
Glenrowan (Victoria). — Kitson, A. E., 2.
Globablastus.—Hambach, G., 1.
Gloggnitz (Lr. Austria).—Keyserling, H. von, 2.
Glossopteris.—Seward, A. C., 2.
Gloucestershire.—Anon., 18; Buckman, S. S., 4; Moore, H. C., 1; Reade, T. M., 3; Richardson, L., 1, 4, & 5; Strahan, A., 1; Tomes, R. F., 1; Wethered, E. B., 1.
Glycimeris.—Dollfus, G. F., 6; Etheridge, R., Fil., 2.
Glyn Ceiriog (Denbighshire). — Moore, C. C., 1.
Glyphæa.—Weller, S., 1.
Glyphioceras.—Foord, A. H., 1; Smith, J. P., 1.
Glyptias.—Walcott, C. D., 3.
Gnangara, Lake (W. Austral.). — Maitland, A. G., 1.
Gneiss, Alpes-Maritimes. — Roccati, A., 1.
——, Alsace.—Bruhns, W., 2.
——, Austria (Lr.). — Keyserling, H. von, 2.
——, Bavaria.—Duell, E., 1.
——, Bohemia.—Hinterlechner, K., 2.
——, British East Africa.—Prior, G. T. 2.
——, Canada.—Osann, A., 1.
——, intrusive.—Cole, G. A. J., 7.
——, Maryland.—Clark, W. B., 4.
——, Mysore.—Jayaram, B., 1; Sambasiva-Iyer, V. S., 1; Slater, H. K., 1; Smeeth, W. F., 1; Wetherell, E. W., 1.

Gneiss, pebbles in Erzgebirge.—Gæbert, C., 1.
——, plant-remains in.—Dal Piaz, G., 1 & 2.
——, Rum, I. of.—Harker, A., 2.
——, Sudan.—Lacoin, —, 1.
——, Victoria (Austral.). — Jenkins, H. C., 1.
Goat, Quaternary.—Koch, A., 3.
Gœthite.—Cesàro, G., 1.
Gold, Alaska.—Brooks, A. H., 3; Collier, A. J., 1.
——, Arizona.—Reagan, A. B., 3.
——, Australia (S.).—Brown, H. Y. L., 1 & 2; (W.).—Campbell, W. D., 1; King, H. S., 1; Krusch, P., 1; Maitland, A. G., 2.
——, British Columbia.—Gwillim, J. C., 1; Prior, E. G., 1 & 2.
——, British Guiana. — Hargreaves, T. S., 1.
——, Bukhara.—Levat, E. D., 1 & 2.
——, California.—Day, D. T., 1; Roberts, G. E., 1; Yunge, G., 1.
——, Canada.—Ingall, E. D., 2.
——, Colorado.—Day, D. T., 1; Lakes, A., 1; Ransome, F. L., 1; Rickard, T. A., 1; Roberts, G. E., 1; Welles, A. M., 1.
——, Egypt.—Alford, C. J., 1.
——, fluorspar &.—Lenher, V., 1.
——, Georgia.—Eckel, E. C., 1.
——, German E. Africa.—Macco, A., 1.
——, Gold Coast.—Bowler, L. P., 1; Sawyer, A. R., 6.
——, India.—Grundy, J., 1; Holland, T. H., 3; Stonier, G. A., 1 & 2.
——, Indiana.—Blatchley, W. S., 3.
——, Ivory Coast.—Armas, M., 1.
—— in Kansas 'shales.'—Lovewell, J. T., 1.
——, Klondyke. — Dawson, G. M., 1; Miers, H. A., 4.
——, Matabeleland—Carey, G. R., 1.
——, Mexico.—Aguilera, J. G., 1; Blake, W. P., 2; Lakes, A., 7.
——, Montana.—Weed, W. H., 7.
——, Natal.—Gray, C. W., 1.
——, Newfoundland.—Howley, J. P., 1.
——, New South Wales.—Pittman, E. F., 1.
——, New Zealand. — McKay, A., 1; Morgan, P. C., 1.
——, Nova Scotia.—Faribault, E. R., 1; Gilpin, E., Jun., 1 & 2.
——, Oregon.—Lindgren, W., 1.
——, Philippine Is.—Nichols, J. C., 1.
——, Queensland. — Boll, L. C., 1, 2, & 3; Cameron, W. E., 2 & 3; Dunstan, B., 2; Jackson, C. F. V., 3.
——, Siberia. — Bordeaux, A., 1; Gerasemov, A. P., 1; Ijitzki, N., 1 & 2; Jaczewski, L., 1; Meister, A., 1 & 2; Obruchev, V., 1.
——, Styria.—Redlich, K. A., 1.
——, Sumatra, &c.—Truscott, S. J., 1.
——, Tasmania.—Twelvetrees, W. H., 3, 4, & 7–10.
Gold, Transvaal.—Black, W. G., 1; Hammond, J. H., 1; Hatch, F. H., 1; Sawyer, A. R., 1.
——, Transylvania.—Vernadski, V. S., 3.
——, Trinidad.—Guppy, R. J. L., 1.
——, United States production.—Day, D. T., 1; Robarts, G. E., 1.
——, Victoria (Austral.).—Cundy, W. H., 1; Jenkins, H. C., 1.
——, Washington.—Spurr, J. E., 1.
——, Woodlark I.—Pinder, C. R., 1.
Gold Coast (W. Africa).—Bowler, L. P., 1; Sawyer, A. R., 6.
Goldberg (Silesia).—Scupin, H., 1.
Gommern (Magdeburg).—Wahnschaffe, F., 1.
Gondwana land-fauna, Brazilian. — Woodward, A. S., 7.
—— Series, India, &c.—Seward, A. C., 4.
Goniatites.—Drevermann, F., 3; Smith, J. P., 1.
Goniobasis.—Stanton, T. W., 2.
Goniocidaris.—Loriol, P. de, 2.
Gonioloboceras.—Smith, J. P., 1.
Goniophora.—Maurer, F., 1; Walther, K., 1.
Gorbelka R. (Siberia).—Ijitzki, N., 1.
Goritz (Austria).—Hœrnes, R., 2.
Gosau (U. Austria).—Felix, J., 2.
—— -sandstone, Grätz.—Hilber, V., 1.
Goshen Hole (Wy.).—Adams, G. I., 1.
Gosseletia.—Maurer, F., 1.
Gotland (Sweden).—Kjellén, R., 2; Moberg, J. C., 2; Munthe, H., 1 & 2; Post, L. von, 1; Winkler, C., 1.
Gotland, I. of (Baltic).—Wiman, C., 2.
GRÆFF, F. F. *See Obit.*, Osann, A., 2.
Graham Shoal. *See* Ferdinandea I.
Grammysia.—Maurer, F., 1; Walther, 1.
Granatocrinus.—Hambach, G., 1.
Grand-Gulf Formation, Mississippi, &c. —Dall, W. H., 2; Hilgard, E. W., 1; Smith, E. A., 2.
Grand-Manil (Belgian Luxemburg). — Malaise, C., 2.
Grandes-Rousses (Savoy).—Girardin, P., 1.
Grandidierite.—Lacroix, A., 10.
Grängesberg (Dalecarlia)—Launay, L. de, 4.
Granite, Aar massif intrusive.—Baltzer, A., 2.
——, Aberdeen, &c.—Joly, J., 6.
——, Africa (S.).—Mennell, F. P., 2.
——, Algeria.—Termier, P., 4.
——, Alpes-Maritimes.—Roccati, A., 1.
——, Alsace-Lorraine.—Bruhns, W., 1.
——, Antarctic.—Prior, G. T., 4.
——, Arctic Canada.—Hanbury, D. T., 1.
——, Baden.—Futterer, K., 1.
——, Bavaria.—Ries, A., 1; Schalch, F., 1.
——, Baveno.—Artini, E., 1.
——, Bohemia.—Hinterlechner, K., 2.
——, Caucasus.—Lœwinson-Lessing, F., 1.

Granite, Cornwall.—Hull, E., 2; Scrivenor, J. B., 1.
——, Crete.—Cayeux, L., 4.
——, crystallization of.—Hunt, A. R., 4; McMahon, C. A., 2.
——, diffusion into crystalline schists.—Greenly, E., 1.
——, Elba.—Achiardi, G. d', 1.
——, Himalayas.—McMahon, C. A., 1 & 3.
——, Ireland.—Elsden, J. V., 6; Seymour, H. J., 3.
——, Kirkcudbright.—Elsden, J. V., 3.
——, Kyffhäuser Mts.—Luedecke, O., 1.
——, Lausitz.—Nessing, R., 1.
——, Leicestershire.—Louis, D. A., 1.
——, Man, I. of.—Elsden, J. V., 2.
——, Maryland.—Clark, W. B., 4.
——, Montorfano.—Tacconi, E., 1.
——, Moravia.—Bock, H., 1.
——, Mysore.—Jayaram, B., 1; Primrose, A., 1; Sambasiva Iyer, V. S., 1 & 2; Slater, H. K., 1; Smeeth, W. F., 1; Wetherell, E. W., 1.
——. New Hampshire.—Perry, J. H., 1.
——, Ontario.—Graton, L. C., 1.
——, 'petit.'—Destinez, P., 1.
——, Pyrenees.—Stuart-Menteath, P. V., 3.
——, Rumania.—Butureanu, V. C., 3.
——, Savoy.—Haug, E., 4.
——, Styria.—Medanich, G., 1.
——, Sudan.—Linck, G., 6.
——, Tasmania.—Twelvetrees, W. H., 12.
——, Transvaal.—Sawyer, A. R., 3 & 5.
——, Utah.—Emmons, S. F., 2.
—— veins.—Harker, A., 3.
——, Vosges.—Van Werveke, L., 19.
——, Washington (U.S.A.).—Shedd, S., 1.
Granitic gravels, Nivernais.—Lamothe, R. de, 1.
Granitoid rocks, Rumania.—Uroshev, S., 1.
Graphite, Bavaria, Ceylon, & Siberia.—Launay, L. de, 3.
——, Canada.—Ingall, E. D., 2; Osann, A., 1; Struthers, J., 13.
——, India.—Grundy, J., 1.
——, Lausitz.—Nessing, R., 1.
——, Mexico.—Aguilera, J. G., 1.
——, Moravia.—Kretschmer, F., 1.
——, origin of.—Weinschenk, E., 6.
Graptolites.—Elles, G. L., 1; Hall, T. S., 1; Kerforne, F., 1; Perkins, G. H., 1.
Grassington Moor (Yorks).—Dakyns, J. R., 2.
Grätz (Styria).—Hilber, V., 1.
Gravels, Alsace-Lorraine.—Fœrster, B., 4.
——, Baltic-coast, transported.—Geinitz, E., 2.
——, Berkshire.—Blake, J. H., 1.
——, England (S.E.).—Monckton, H. W., 5.
——, Germany (N.), Jurassic in.—Oppenheim, P., 4.
Gravels, Gloucestershire, &c.—Callaway, C., 3; Reade, T. M., 3.
——, Long I. (N.Y.).—Fuller, M. L., 3.
——, Moravia.—Felix, J., 1.
——, Paris Basin.—Grossouvre, A. de, 2.
——, Rhein-Hesse terrace-.—Schopp H., 1.
——, Rhône.—Boistel, A., 1.
——, Suffolk.—Layard, N. F., 1.
——, Sylt, &c.—Martin, J., 1; Petersen, J., 1.
——, Thames Valley.—Haige, A. H., 1; Pocock, T. I., 1.
——, water-filtration & valley-.—Andrimont, R. d', 2.
——, Wiltshire.—Reid, C., 1 & 3.
Gravity, geology &.—Lapparent, A. de, 9.
——, measurement of.—Issel, A., 6.
——, mineral specific.—Behr, J., 1; Mackie, W., 1.
——, Munich.—Pfaff, F. W., 2.
——, Piedmont.—Aimonetti, C., 1.
——, planets &.—Borredon, G., 1–5.
—— variations of.—Helmert, F. R., 1; Montessus de Ballore, F. de, 2; Zachariæ, —, 1.
——, Württemberg.—Koch, K. R., 1.
Grays (Essex).—Salter, A. E., 1.
Great-Basin Region (Nevada, &c.).—Davis, W. M., 4.
Great Bear & Great Slave Lakes (N.W. Canada).—Bell, J. M., 1.
Great Britain.—Anon., 22; Atkinson, J. B., 1; Davies, T. J., 1; Foster, C. Le N., 1 & 2; Jentzsch, A., 3; Kendall, P. F., 2.
Great Western Railway, Denham cutting.—Howe, J. A., 1.
Greece.—Bock, J., 1; Cayeux, L., 1; Hilber, V., 2; *see also* Eubœa, &c.
Green Mts. (N.Y. & Vt.).—Dale, T. N., 1.
Green-Pond Mt. (N.J.).—Weller, S., 2.
Greenbushes (W. Austral.).—Krusch, P., 1.
Greenland.—Engell, M. C., 1; Pratt, J. H., 7; Winkler, C., 1.
Greensand (Lr.), Bedfordshire.—Home, H., 1; Lamplugh, G. W., 7; Norfolk.—Elsden, J. V., 5.
—— marl, New Jersey.—Parsons, A. L., 1.
Greenstone, Cornwall.—Hill, J. B., 1; Parkinson, J., 1.
Greenwood (British Columbia).—Johnson, P., 1.
Greisen, Cornwall.—Scrivenor, J. B., 1.
Grenada I. (W.I.).—Sapper, K., 3.
Grenoble (Dauphiné).—Loriol, P. de, 2.
Grenville (Quebec).—Ells, R. W., 3.
Grès de May, Normandy.—Shrubsole, O. A., 1.
Greta (Victoria).—Kitson, A. E., 2.
Grevillea.—Deane, H., 1.
Grey Hook (Spitsbergen).—Kayser, E., 1.
GRIESBACH, C. L. *See* Anon., 15.
Griffithides.—Illes, V., 1.
Griphopithecus.—Abel, O., 2.

Griqualand East (Cape Colony).—Schwarz, E. H. L., 1 & 2.
Grisons (Switzerland).—Hess, H., 1; Hœk, H., 1; Schmidt, C., 1,
Grive-Saint-Alban (Isère).—Major, C. I. F., 1.
Gryphæa.—Dacqué, E., 1; Shattuck, G. B., 1.
Guadeloupe (W.I.).—Lacroix, A., 5; Sapper, K., 10.
Guaranian.—Ameghino, F., 6.
Guatemala (Cent. Am.).—Anon., 22; Bergeat, A., 1–3; Brauns, R., 1; Rockstroh, E., 1; Sapper, K., 1; Schottler, W., 2.
Guembelia.—Prever, P., 1.
Guienne (France).—Stefano, G. de, 1.
Gunn, W. *See Obit.*, Horne, J., 1.
Gunstett (Alsace).—Hermann, A., 1.
Gypidula.—Weller, S., 2.
Gypsum, Canada.—Ingall, E. D., 2.
——, Eden Valley.—Burns, D., 1.
——, influence in nature.—Walther, J., 2.
——, origin of.—Delkeskamp, R., 1; Meunier, S., 13; Ochsenius, C., 4; Sherwin, R. S., 1.
——, United States.—Struthers, J., 10; Wilder, F. A., 1.
Gyracanthides.—Woodward, A. S., 5.

Haddington (Scotland).—Goodchild, J. G., 1.
Hadjin (Asia Minor).—Fuchs, T., 2; Penecke, K. A., 1.
Hadleigh (Suffolk).—Whitaker, W., 1.
Hadrachne.—Melander, A. L., 1.
Hadropithecus.—Lorenz, L. von, 1.
Hæmatite.—Launay, L. de, 2; Melczer, G., 2; Schaller, W. T., 1; Walker, W. E., 1.
Haidingerite.—Schulten, A. de, 2.
Hailes Quarry (Edinburgh).—Hepburn, D., 1.
Hainault (Belgium).—Cornet, J., 2–4; Delépine, G., 2.
Haine R. (Belgium).—Cornet, J., 4.
Halifax (Yorks.).—Simpson, W., 1.
Halimeda.—Lorenz, J. von, 2.
Halitherium.—Van Oort, E. D., 1.
Hall, C. M. *See Obit.*, Upham, W., 2.
Hallstatt (U. Austria).—Jæger, F. M., 1.
Hallwell-Cottage Beds, Cornwall.—Parkinson, J., 1.
Halmariphus.—Ameghino, F., 4.
Hamilton Formation, New York.—Cleland, H. F., 1; Ontario.—Shimer, H. W., 1.
Hamites.—Etheridge, R., Fil., 2; Weller, S., 1; Wollemann, A., 1.
Hampshire.—Bullen, R. A., 1; Monckton, H. W., 3; Ormerod, H. A., 1.
Hamulina.—Sarasin, C., 2.
Hanging valleys, California,—Branner, J. C., 5; Colorado.—Crosby, W. O., 2.
Hanover (Germany).—Kœnen, A. von, 2; Menzel, H., 1 & 2; Ochsenius, C., 1; Schucht, F., 1; Stille, H., 1; Wollemann, A., 1 & 3; Wunstorf, W., 1.
Hantkenia.—Prever, P., 1.
Hapalops.—Scott, W. B., 1.
Haplaræa & *Haplohelia.*—Felix, J., 2.
Haplocanthus.—Hatcher, J. B., 2.
Haploceras.—Weller, S., 1.
Hardanger Fjord (Norway).—Monckton, H. W., 4.
Häreng (Tyrol).—Dreger, J., 2.
Hares, Tertiary.—Matthew, W. D., 5.
Harlyn Bay (Cornwall).—Bullen, R. A., 2.
Harpagodes.—Shattuck, G. B., 1.
Harpes.—Reed, F. R. C., 5.
Harpoceras.—Burckhardt, C., 1; Loriol, P. de. 1.
Harris (I. H.) Collection, U.S. National Museum.—Schuchert, C., 2.
Harrogate (Yorks).—Smith, W. G., 1.
Hartenrod (Cassel).—Heineck. F., 2.
Härtsfeld Mts. (Württ.).—Endriss, K., 1.
Harz Mts. (Germany).—Everding, H., 1; Harbort, E., 2; Hecker, O., 3; Hornung, F., 1; Van Werveke, L., 11; Wuest, E., 3 & 4.
Haubourdin (Nord).—Gosselet, J., 5; Lagaisse, —., 1.
Haute-Garonne (France).—Boule, M., 1; Carez, L., 4; Michel-Lévy, A., 1; Moissan, H., 1.
Hauterivian, Provence.—Pellat, E., 1.
Hautrages (Hainault).—Cornet, J., 3.
Havana (Cuba).—Eigenmann, C. H., 1.
Hawaiian Is. (Pacific).—Branner, J. C., 3; Lindgren, W., 4.
Hawkesbury Sandstone.—Card, G. W., 2.
Hay Springs (Neb.).—Matthew, W. D., 6.
Haye, La, plateau (Brabant).—Imbeaux, —, 1.
Hazel, fossil, Sweden.—Andersson, G., 1.
Heathcotian, Victoria (Austral.).—Gregory, J. W., 3.
Heathfield (Sussex).—Dixon, H. B., 1; Woodward, H. B., 11.
Heaton Park (Lancs).—Dickson, J., 2.
Hebrides (Scotland).—Knight, G. A. F., 1.
Hedenstrœmia.—Smith, J. P., 1.
Heemskirk, Mt. (Tasm.).—Waller, G. A., 4.
Heid (Württ.).—Endriss, K., 1.
Heidelberg (Baden).—Cohen, E., 3; Schœtensack, O., 1.
Helderberg Limestone, Ohio.—Claypole E. W., 1.
Helenia.—Woodward, H., 7.
Heliastræa.—Osasco, E., 1.
Helicoprion.—Karspinski, A., 1; Simoëns, G., 2; Van den Broeck, E., 2; Van de Wiele, C., 1; Woodward, A. S., 3.
Heligoland, I. (North Sea).—Martin, J., 1; Petersen, J., 1.

Heliopora.—Felix, J., 2.
Helix (*Tachea*) *sylvana*-limestone.—Miller, K., 1; Rollier, L., 2.
Helodus.—Eastman, C. R., 1.
Helvetian, Randengrobkalk &.—Rollier, L., 3.
Hemera.—Buckman, S. S., 3; Jukes-Browne, A. J., 1.
Hemiaster.—Fourtau, R., 1; Gauthier, V., 1; Kossmat, F., 1; Lambert, J., 1.
Hemicidaris.—Gauthier, V., 2.
Hemipedina.—Loriol, P. de, 2.
Hemipristis.—Eastman, C. R., 2.
HENDERSON, J. *See Obit.*, Goodchild, J. G., 5.
Hendre Quarry, Glyn Ceiriog.—Moore, C. C., 1.
Henry Co. (Iowa).—Savage, T. E., 1.
Heraklea (Asia Minor).—Simmersbach, B., 1.
Hérault (Languedoc).—Angelis d'Ossat, G., 4.
Herborn (Cassel). — Heineck, F., 2; Walther, K., 1.
Herefordshire.—Callaway, C., 4; Moore, H. C., 1.
Hertfordshire.—Hopkinson, J., 2; Saunders, J., 1; Woodward, H. B., 2 & 9.
Herzegovina.—Hœrnes, R., 2.
Hesperornis.—Lucas, F. A., 8.
Hesse (Germany). — Buecking, H., 4; Chelius, C., 1; Delkeskamp, R., 2; Denckmann, A., 1; Harbort, E., 2; Klemm, G., 2; Lepsius, R., 1; Schopp, H., 1; Schultz, W., 1; Schuster, W., 1; Wuest, E., 2.
Heterangium.—Nathorst, A. G., 1.
Heterastræa.—Tomes, R. F., 1.
Heteroceras.—Whitfield, R. P., 2.
Heteroclitotriton.—Stefano, G. de, 1.
Heterocœnia.—Felix, J., 2.
Heterodera.—Pampaloni, L., 1.
Hexactinellidæ, Chalk.—Ungern-Sternberg, E. von, 1; *see also* Sponges.
Heynaldella.—Blake, W. P., 3.
Hicoria.—Knowlton, F. H., 1.
Highlands, N.W. (Scotland).—Lake, P., 1.
Hillend (Pentlands).—Strachan, J., 1.
Himalayas (Asia).—Freshfield, D. W., 1; Krafft, A. von, 1; Lake, P., 1; McMahon, C. A., 1 & 3; Montessus de Ballore, F. de, 2; Stephens, F. J., 1 & 2.
Hindia.—Weller, S., 2.
Hindu Khoosh (Himalayas).—McMahon, C. A., 1.
Hinnites.—Woods, H., 1.
Hipparion.—Venukov, P. I., 1.
Hippurites.—Franchis, F. de, 1; Hilber, V., 1; Longhi, P., 1; Pethœ, J., 3; Toucas, A., 2.
Hirschberg (Thuringia).—Zimmermann, E., 1.
Histrichoceras. — Etheridge, R., Fil., 2.
Histrixite.—Pettard, W. F., 1.
Hitcham Street (Suffolk). — Whitaker W., 1.
Hodder Place (Lancs).—Hind, W., 1.
Hogneau R. (Hainault).—Cornet, J., 2.
Hohenberg (Bavaria).—Regelmann, C., 1.
Hohen Tauern (Styria).—Weinschenk, E., 2.
Hohenzollern (Germany).—Schuetze, E., 2.
Hoigne R. (Liége).—Fourmarier, P., 1 & 3.
Hokkaidō (Japan).—Anon., 26; Yabe, H., 1.
Holaster.—Gauthier, V., 1; Wollemann, A., 1.
Holcotrochus.—Dennant, J., 1.
Höll-Loch (Muotta Valley).—Otter, J., 1.
Holland.—Lorié, J., 1.
HOLLAND, T. H. *See* Anon., 16.
Holocene. *See* Quaternary.
Homacanthus.—Eastman, C. R., 1.
Homalonotus.—Maurer, F., 1; Woodward, H., 1.
Homberg a. Efze (Hesse).—Schultz, W., 1.
Homœaster.—Lambert, J., 1.
Homœomorphy, plant. — Arber, E. A. N., 1.
Homomya.—Shattuck, G. B., 1.
Homunculus.—Ameghino, F., 4.
Honisgründe (Baden).—Futterer, K., 1.
Hooken Cliffs (Devon).—Rowe, A. W., 2.
Hoplites.—Burckhardt, C., 1; Uhlig, V., 1.
Horbury (Yorks).—Sutcliffe, R., 1.
Horn I. (Gulf of Carpentaria).—Jackson, C. F. V., 3.
Hornblende, Cappuccini. — Zambonini, F., 4; *see also* Amphibole.
Hornera.—Maplestone, C. M., 1.
Hořowitz (Bohemia).—Liebus, A., 1.
Horses, Palæolithic.—Munro, R., 1.
Hot Springs, Dominica.—Sapper, K., 8.
Howlite.—Giles, W. B., 1.
Huascolite.—Pettard, W. F., 1.
Hudsonite.—Weidman, S., 1.
Hull (Yorks).—Sheppard, T., 2, 3, & 5.
Humus.—Hardy, M., 1.
Hundés (Himalayas).—Krafft, A. von, 1.
Hungary.—Beck, H., 1; Bœckh, J., 1; Gorjanović-Kramberger, K., 1; Halaváts, J., 1; Horusitzky, H., 2; Kalecsinszky, A. von, 2; Koch, A., 1–5; Lajos, F., 1; Liebus, A., 2; Lœrenthey, E., 1; Lugeon, M., 2; Pálfy, M. von, 2; Pethœ, J., 1-3; Posewitz, T., 1; Schafarzik, F., 1 & 2, 4–6; Timko, E., 1; Treitz, P., 1–3; Uhlig, V., 2; Vetters, H., 1; *see also* Carpathians Transylvania, &c.
Hunsruckia.—Traquair, R. H., 3.
Hunter R. (N.S.W.).—Atkinson, A. A., 1.
Huntsham (Hereford).—Wood, J. G., 1.
Hunyad (Hungary).—Halaváts, J., 1.
Hurricane Fault, Utah. — Huntington, E., 1.

Hüttenberg (Carinthia).—Baumgærtel, B., 1.
Hyæna.—Boule, M., 2.
Hyalophane.—Baumhauer, H., 4.
Hyatt, A. *See Obit.*, Minot, C. S., 1; Packard, A. S., 1.
Hydnophora.—Felix, J., 2.
Hydrangea.—Knowlton, F. H., 1.
Hydrobia.—Fœrster, B., 5.
Hydrochœrus.—Ameghino, F., 2.
Hydrology, S. Dakota.—Todd, J. E., 1.
Hydromagnesite.—Brugnatelli, L., 2 & 3.
Hydrophora.—Osasco, E., 1.
Hydrothermal metamorphism, Devon schist.—Hunt, A. R., 7.
Hyopotamus.—Bush, L. P., 1.
Hyperodapedon.—Boulenger, G. A., 1.
Hypertragulidæ & *Hypisodus.* — Matthew, W. D., 5.
Hypsaster.—Gauthier, V., 1.
Hypsospatangus.—Loriol, P. de, 2.

Iano (Tuscany).—Barsanti, L., 1.
Ice-Age, Milky Way & the.—Very, F. W., 1.
——, origin of.—Longe, F. D., 1.
——, Wutach district. — Steinmann, G., 2.
Ice, Antarctic.—Arçtowski, H., 3; Bellingshausen, F. von, 1.
——, blocks transported by.—Prest, W. H., 1.
—— -erosion, Skye.—Harker, A., 1.
—— -field, Brazeau.—Coleman, A. P., 3.
—— -movement.—Crammer, H., 2.
Iceland.—Meunier, S., 12; Pjetursson, H., 1.
Ichthyosarcoliths.—Jacob, C., 1.
Ichthyosaurus. — Knight, W. C., 3; Merriam, J. C., 1; Sheppard, T., 1; Yakovlev, N., 3.
Idaho (U.S.A.).—Lakes, A., 2; L'Hame, W. E., 1; Russell, I. C., 3–5.
Idocrase.—Bœris, G., 1.
Idonearca.—Etheridge, R., Fil., 2.
Ifö, Lake (Gotland).—Moberg, J. C., 2.
Igneous intrusion, mechanics of.—Daly, R. A., 2 & 3.
—— rock-classification, chemical. — Osann, A., 5; macroscopic.—Ans, J. d', 1; Osann, A., 4; quantitative. — Cross, W., 6.
—— ——, contraction-cylinder in. — Kueppers, E., 1.
—— rocks, Abyssinia.—Raisin, C. A., 1.
—— ——, Algeria.—Ritter, E., 1.
—— ——, Alsace.—Linck, G., 1 & 2.
—— ——, analysis.—Fouqué, F., 1.
—— ——, Andes.—Becke, F., 1.
—— ——, Angola, &c.—Berg, G., 2.
—— ——, Antarctic.—Prior, G. T., 4.
—— ——, Aranyos Valley.—Pálfy, M. von, 1; Telegd, L. R. von, 1.
—— ——, Arizona.—Reagan, A. B., 3.
—— ——, Arran.—Gunn, W., 1.
—— ——, Bavaria.—Knebel, W. von, 1.
Igneous rocks, Bohemia. — Bauer, F., 1; Becke, F., 1; Graber, H. V., 1.
—— ——, Bristol district.—Morgan, C. L., 1.
—— ——, British Columbia.—Daly, R. A., 3.
—— ——, British East Africa.—Prior, G. T., 2.
—— ——, Caucasus.—Dervis, V., 1.
—— ——, Charnwood Forest.—Bennett, F. W., 1; Watts, W. W., 1.
—— ——, Cornwall.—Fox, H., 2; Hill, J. B., 1; Parkinson, J., 1.
—— ——, Crete.—Cayeux, L., 4.
—— ——, Cumberland. — Walker, E. E., 1.
—— ——, Dartmoor.—Worth, R. H., 1.
—— ——, devitrification in. — Bonney T. G., 12.
—— ——, earth's crust &.—Milch, L., 1.
—— ——, Eubœa.—Deprat, J., 2.
—— ——, Himalayas. — McMahon, C. A., 1.
—— ——, Ireland.—Andrews, M. K., 1; Cole, G. A. J., 1; Lamplugh, G. W., 6.
—— ——, Lombardy.—Salomon, W., 1.
—— ——, magnetism &.—Brunhes, B., &c., 1.
—— ——, Martinique.—Giraud, J., 1.
—— ——, Maryland.—Bascom, F., 1; Clark, W. B., 4.
—— ——, Mexico.—Felix, J., 5.
—— ——, Montenegro.— Zujovič, J. M., 1.
—— ——, New South Wales. — Card, G. W., 3.
—— ——, ore-deposits &. — Weed, W. H., 5.
—— ——, Quebec.—Adams, F. D., 3.
—— ——, Rajputana.—La Touche, T. D., 1.
—— ——, Rumania.—Buțureanŭ, V. C., 1 & 3; Cadere, D., 1.
—— ——, Sardinia.—Dannenberg, A., 1.
—— ——, Servia.—Petkov, V. K., 1.
—— ——, Sokotra, &c.—Kossmat, F., 1.
—— ——, Somaliland.—Arsandaux, H., 1.
—— ——, Tasmania.—Twelvetrees, W. H., 12.
—— ——, Thuringia.—Luedecke, O.
—— ——, Tyrol.—Dœlter, C., 3; Ippen, J. A., 1–7; Romberg, J., 2; Weinschenk, E., 2.
—— ——, vein-formation &. — Kemp, J. F., 2.
—— ——, Venetia. — Keyserling, H. von, 1.
—— ——, volume-composition of. — Moore, C. C., 1.
—— ——, Wisconsin.—Grant, U. A., 1.
—— ——, Württemberg. — Endriss, K., 1.
—— ——. *See also* Contact-metamorphism, Magmas, Basalt, &c.
Iguanodon.—Pauw, L. F. de, 1 & 2.
—— coprolites.—Bertrand, C. E., 1.
Iheringina & *Ilarionia.*—Loriol, P. de, 2.

Ilex.—Engelhardt, H., 1.
Ilford (Essex).—Howe, J. A., 2.
—— & Woodford Railway.—Holmes, T. V., 1.
Illænurus.—Weller, S., 2.
Ille-et-Vilaine (France).—Bigot, A., 2 & 4; Kerforne, F., 1–5; Lebesconte, P., 1; Lechartier, G., 1.
Illiez Valley (Savoy).—Preiswerk, H., 1.
Illinois (U.S.A.).—Ashley, G. H., 1; Melander, A. L., 1.
Ilmenite.—Day, D. T., 1.
Implements, flint & stone.—Beadnell, H. J. L., 2; Bennett, F. J., 1; Bullen, R. A., 1 & 2; Cunnington, W., 1; Kaschen, N., 1; Knowles, W. J., 1 & 2; Kœnen, C., 1; Layard, N. F., 1; Neilson, J., 1; Reid, C., 1; Schœtensack, O., 1; Wolff, F. von, 2.
Impruneta (Tuscany).—Trabucco, G., 1.
Inclusions, fluid.—Hunt, A. R., 6.
——, volcanic.—Lacroix, A., 9.
India.—Adamson, T., 1; Grundy, J., 1; Holland, T. H., 1 & 3; Stephens, F. J., 1 & 2; Stonier, G. A., 1 & 2; Walker, T. L., 1; Warth, H., 1; *see also* Cutch, &c.
Indian Ocean. — Lomas, J., 3 & 6; Verrill, A. E., 1.
Indian Territory (U.S.A.). — Eldridge, G. H., 1; Taff, J. A., 1.
Indiana (U.S.A.). — Ashley, G. H., 1 & 2; Blatchley, W. S., 1, 2 & 3; Epperson, J., 1; Fœrste, A. F., 1; Hessler, R., 1; Hopkins, T. C., 1; Kindle, E. M., 1; Leach, J. C., 1; Newsom, J. F., 1 & 2; Nickles, J. M., 1; White, D., 2; Zaring, W. C., 1.
Infusorial earth, United States.—Pratt, J. H., 5.
Inn R. (Grisons).—Hess, H., 1.
Inn Valley (Tyrol).—Ampferer, O., 1.
Inoceramus. — Etheridge, R., Fil., 2; Petrascheck, W., 1; Shattuck, G. B., 1.
—— chalk.—Liebus, A., 2
Insects, Carboniferous.—Melander, A. L., 1; Pocock, R. I., 1 & 2; Sellards, E. H., 1; Stobbs, J. T., 1.
——, Permian.—Sellards, E. H., 3.
——, Quaternary.—Lapouge, G. de, 1.
——, Tertiary. — Fœrster, B., 3 & 5; Pampaloni, L., 1; Trotter, A., 1.
Interlaken (Switzerland).—Douvillé, H., 10.
Iola (Kan.).—Grimsley, G. P., 1.
Iona I. (Scotland).—Coomáraswámy, A. K., 4.
Iowa (U.S.A.).—Bain, H. F., 1; Beyer, S. W., 1; Calven, S., 1; Leonard, A. G., 1; Macbride, T. H., 1; Savage, T. E., 1; Udden, J. A., 1 & 2; Wilder, F. A., 1.
Ipswich (Suffolk).—Bassett, H., Jun., 1; Layard, N. F., 1; Whitaker, W., 1.
Iraniaster.—Gauthier, V., 1.
Ireland.—Anon., 38; Clark, R., 1; Cole, G. A. J., 1, 2, & 11; Elsden, J. V., 6; Foord, A. H., 1; Foster, C. Le N., 2; Johnson, T., 1; Joly, J., 6; Kendall, P. F., 2; Knowles, W. J., 2; O'Reilly, J. P., 1; Præger, R. L., 1; Seymour, H. J., 1–3; Ussher, R. J., 1; Wright, J., 1–3; *see also* Donegal, &c.
Irkutsk (Siberia).—Herz, O., 1.
Iron, Alsace-Lorraine.—Benecke, E. W., 1; Schweitzer, J., 1; Van Werveke, L., 15.
——, Bilbao.—Adams, F. D., 1.
——, Canada.—Coleman, A. P., 1 & 4; Ingall, E. D., 1 & 2; Pratt, J. H., 10.
——, Carinthia.—Baumgaertel, B., 1.
——, Congo Free State.—Cornet, J., 5.
——, Cuba.—Birkinbine, J., 1.
——, German E. Africa.—Macco, A., 1.
——, Germany (N.W.).—Harbort, E., 2.
——, Great Britain.—Foster, C. Le N., 2.
——, Greenland.—Winkler, C., 1.
——, India.—Grundy, J., 1.
——, meteoric.—Berwerth, F., 1; Campbell, H. D., 2; Cohen, E., 1 & 2; Klein, C., 2; Preston, H. L., 2.
——, Mexico.—Aguilera, J. G., 1; Rangel, M. F., 1; Villarello, J. de D., 1; White, W., Jun., 1; Witherbee, T. F., 1.
——, Michigan.—Jackson, J. F., 1.
——, Minnesota.—Leith, C. K., 1.
——, Moravia.—Kretschmer, F., 1.
——, Mysore.—Primrose, A., 1; Sambasiva Iyer, V. S., 2; Smeeth, W. F., 1.
——, Nassau.—Bellinger, J., 1; Lotz, H., 2.
——, Newfoundland.—Howley, J. P., 1.
——, New Jersey. — Kuemmel, W. H., 1.
——, New South Wales.—Pittman, E. F., 1.
——, New York State.—Reis, H., 1.
——, Norway.—Vogt, J. H. L., 2.
——, Nova Scotia.—Gilpin, E., Jun., 1 & 2; Weatherbe, D'A., 1.
——, Scotland.—Goodchild, J. G., 8.
——, Servia.—Bajetz, M. J., 1; Djlagoi, M. T., 1.
——, Silesia.—Berg, G., 1.
——, Staffordshire. — Cadman, J., 1; Hind, W., 7.
——, Styria.—Taffanel, J., 1.
——, Sussex.—Dawson, C., 1.
——, Sweden.—Launay, L. de, 4; Osborn, C. S., 1.
——, Tasmania. — Twelvetrees, W. H., 3 & 4; Waller, G. A., 2.
——, Taunus Mts.—Delkeskamp, R., 2.
——, United States, production.—Birkinbine, J., 1; Day, D. T., 1; Pratt, J. H., 10; *see also* Michigan, &c.
——, Urals.—Duparc, L., 4.
——, Westphalia.—Bruecher, M., 1; Wiese, T., 1.
Iron Gates (Danube).—Schafarzik, F., 5.
Isastræa.—Felix, J., 2.
Ischyodus.—Leriche, M., 1.
Iseo, Lake (Lombardy).—Baltzer, A., 1.
Isère (Dauphiné).—Kilian, W., 2.

Iserlohn (Westphalia).—Habets, A., 1.
Isocardia.—Dainelli, G., 3; Etheridge, R., Fil., 2; Shattuck, G. B., 1.
Isochilina.—Jones, T. R., 1.
Isoletta (Campania).—Flores, E., 2.
Isopneustes.—Airaghi, C., 2.
Istebner Beds, Silesia. — Wisniovski, T., 1.
Istria (Austria). — Hœrnes, R., 2; Nopčsa, F. von, Jun., 3.
Italy, bauxite-localities.—Achiardi, G. d', 2; Novarese, V., 3.
——, central railway.—Segré, C., 1.
——, geological literature.—Bonarelli, G., 1.
——. *See also* Piedmont, Tertiary, &c.
Ivigtok (Greenland).—Pratt, J. H., 7.
Ivory Coast (W. Africa). — Armas, M., 1.
Ivrea (Piedmont).—Novarese, V., 1.
Izalco Volcano (Guatemala).—Bergeat, A., 2; Sapper, K., 2.

Jacob's Cavern (Mo.).—Gould, C. N., 1.
Jade.—Colomba, L., 2; Franchi, S., 2; Issel, A., 2; Novarese, V., 2; Stella, A., 1; Wolff, F. von, 2.
Jækelocystis.—Schuchert, C., 5.
Jakobshavn (Greenland). — Engell, M. C., 1.
Jamiesonite.—Pettard, W. F., 1.
Janassa.—Eastman, C. R., 1.
Japan.—Anon., 26; Imamura, A., 1; Inouye, K., 1; Kanehara, N., 1; Kochibe, T., 1; Kusakabe, S., 1; Kutschera, M., 1; Loriol, P. de, 2; Norman, F. J., 1; Omori, F., 1-4; Ogawa, T., 1; Richthofen, F. von, 1; Rudolph, E., 2; Senkino, S., 1; Weber, M., 2; Yabe, H., 1.
Jaszitrabj (Hungary).—Knett, J., 3.
Jemez (New Mexico). — Reagan, A. B., 1.
Jennings, A. V. *See Obit.*, Anon., 8; Cole, G. A. J., 9.
John-Day River Beds, Oregon.—Knowlton, F. H., 1.
Johnson, Mt. (Quebec). — Adams, F. D., 3.
Johnstonite.—Pettard, W. F., 1.
Jolla, La (Cal.).—Lakes, A., 10.
Jolomita Valley (Rumania).—Bergeron, J., 1.
Jonquerettes (Vaucluse). — Châtelet, C., 1.
Jordan Valley (Palestine). — Libbey, W., 1.
Josefsthal (Moravia).—Bock, H., 1.
Joux Lakes (Swiss Jura). — Forel, F. A., 2; Golliez, H., 1.
Judith-River Beds. — Hatcher, J. B., 1 & 4.
Juglans.—Knowlton, F. H., 1.
Jujuy (Argentina).—Ducloux, E. H., 1.
Julia I. *See* Ferdinandea I.
Junction-beds, disturbance of.—Lamplugh, G. W., 4.
Jura, French. — Bourgeat, —, 1-3; Piroutet, M., 2; Swiss.—Forel, A., 2; Golliez, F. H., 1; Muehlberg, F., 3; Schardt, H., 1.
Jurassic, Algeria.—Ritter, E., 1.
——, Alsace-Lorraine.—Deecke, W., 1; Haug, E., 1; Van Werveke, L., 12.
——, Andes.—Burckhardt, C., 1.
——, Ariège.—Carez, L., 5 & 7.
——, Aube Valley.—Lemoine, P., 1.
——, Bavaria. — Kohler, E., 1; Schmierer, T., 1.
——, Biarritz.—Carez, L., 6.
——, Borneo.—Newton, R. B., 1.
——, Calvados.—Bigot, A., 5.
——, Cher.—Péron, A., 1.
—— concretions.—Raisin, C. A., 1.
——, Crete.—Cayeux, L., 2.
——, Cutch.—Kitchin, F. L., 1.
—— facies, Tanganyika.—Moore, J. E. S., 1.
——, Freiburg Alps.—Keidel, H., 1.
——, Gloucestershire.—Richardson, L., 1 & 4; Wethered, E. B., 1.
——, Grisons.—Hœk, H., 1.
——, Hanover.—Wunstorf, W., 1.
——, Kharkov Gov.—Borisiak, A., 1.
——, Leicester.—Fox-Strangways, C., 1.
—— limestone-water, Britain.—Woodward, H. B., 12.
——, Lombardy.—Bistram, A. von, 1.
——, Monmouthshire. — Richardson, L., 2; Vaughan, A., 1.
——, Northants.—Thompson, B., 1 & 3.
——, Salt Range.—Koken, E., 2.
——, Servia.—Eletz, V. M., 1.
——, Spain.—Sauvage, H. E., 1 & 2; Zeiller, R., 2.
——, Tunis.—Pervinquière, L., 1.
—— types, Geological Survey.—Allen, H. A., 1.
——, Umbria.—Lotti, B., 1.
——, Vendée.—Chartron, C., 1.
——, Venetia.—Campana, D. del, 1.
——, Wiltshire.—Jukes-Browne, A. J., 2; Reid, C., 7.
——, Worcestershire.—Hull, E., 1.
——, Württemberg. — Engel, —, 1; Freudenberg, W., 1.
——, Wyoming.—Loomis, F. B., 1.
——. *See also* Lias, &c.
Juslenville (Liége).—Fourmarier, P., 1.
Justen, F. W. *See Obit.*, Anon., 9.
Jutland (Denmark).—Ussing, N. V. 1.

Kahlen Mts. (Lr. Austria).—Toula, F., 2.
Kainach (Styria).—Hilber, V., 1.
Kainite.—Van't Hoff, J. H., 5.
Kai-Ping (Chi-Li).—Drake, N. F., 1; Hoover, H. C., 1.
Kaiser-Wilhelm-Canal (Schleswig-Holstein).—Zeise, O., 1.
Kaïtago-Tabasaran (Daghestan).—Golubyatnikov, D. V., 1.
Kalahandi State (U. P., India). — Walker, T. L., 1.
Kalesi, New (Servia).—Vinassa de Regny, P., 2.

Kalgoorlie (W. Austral.).—Krusch, P., 1.
Kalgoorlite.—Spencer, L. J., 1.
Kalisz (Poland).—Levinski, J., 1.
Kambove (Congo F. S.).—Katanga, A., 1.
Kamyshin (Saratov).—Palibin, J. von, 1.
Kanawha black-flint beds.—White, I. C., 1.
—— R. (U.S.A.).—Campbell, M. R., 2.
Kandy (Ceylon). — Coomáraswámy, A. K., 2.
Kangaroo Hills (Queensl.). — Cameron, W. E., 3.
Kangaroo I. (S. Austral.). — Howchin, W., 1.
Kangchenjunga (Himalayas). — Freshfield, D. W., 1.
Kansas (U.S.A.). — Adams, G. I., 2; Beede, J. W., 1 & 3; Crane, W. R., 1 & 2; Crevecœur, F. F., 1; Grimsley, G. P., 1; Johnson, W. D., 1; Jones, A. W., 1; Keyes, C. R., 3; Lindgren, W., 2; Lovewell, J. T., 1; Merrill, G. P., 2; Sellards, E. H., 3; Sherwin, R. S., 1; Shimek, B., 1; Smith, A. J., 1; Upham, W., 1 & 4; Yates, J. A., 1.
Kaolin, Gotland.—Moberg, J. C., 2.
——, Kherson Gov.—Samoïlov, J., 3.
——, Normandy.—Bigot, A., 3.
——, occurrence of.—Dammer, —, 1.
Kara-Barun (Asia Minor). — Achiardi, G. d', 5.
Karachi (India.).—Oldham, R. D., 2.
Karikal (India).—Crossmann, M., 2.
Karlsbad (Bohemia).—Knett, J., 1.
Karoomys.—Broom, R., 2.
KARRER, F. *See Obit.*, Van den Broeck, E., 9.
Karroo Beds, Cape Colony.—Broom, R., 3; Transvaal.—Sawyer, A. R., 3.
Karwendel Mts. (Tyrol).—Ampferer, O., 2.
Kasan Gov. (Russia).—Vernadski, V. S., 1.
Kasbek (Caucasus).—Lœwinson-Lessing, F., 1.
Kashmir (India).—Eckenstein, O., 1.
Katanga (Congo F. S.).—Cornet, J., 5.
Katzenbückel (Württ.). — Freudenberg, W., 1.
Kearsarge, Mt. (N. Ha.). — Perry, J. H., 1.
Keewatin District (Canada).—Hanbury, D. T., 1.
Keewatin Formation, Minnesota.—Hall, C. W., 1.
Keisley Limestone-pebbles.—Gill, E. L., 1.
Kellerwald (Hesse).— Denckmann, A., 1 & 2.
Kelvedon (Essex).—Holmes, T. V., 3.
Kent.—Jukes-Browne, A. J., 6; Salter, A. E., 3; Woodward, A. S., 8.
Kent Peninsula (Arctic Canada).—Hanbury, D. T., 1.
Kentani (Cape Colony).—Rogers, A. W., 4.
Kentucky (U.S.A.).—Eldridge, G. H., 1; Fœrste, A. F., 1.
Kenya Mt. (Equatorial Africa).—Prior, G. T., 2.
Kerosene-shale, N. S. W.—Carne, J. E., 1; Pittman, E. F., 1.
——, Tasmania.—Twelvetrees, W. H., 2.
Kersantonite.—Barrois, C., 6; Ippen, J. A., 4.
Kesh Caves, Sligo.—Præger, R. L., 1.
Kessingland (Suffolk). — Whitaker, W., 1.
Ketchikan (Alaska).—Brooks, A. H., 3.
Keuper, Devon.—Somervail, A., 3.
——, Franche Comté.—Piroutet, M., 2.
——, Monmouthshire.—Richardson, L., 2.
——. *See also* Trias, &c.
Kew Gardens.—Clarke, C. B 1.
Keweenawan (Minnesota).—Hall, C. W., 1.
——, trap-rocks.—Grant, U. A., 1.
Keynsham (Somerset).—Vaughan, A., 2.
Kharkov Gov. (Russia).—Borisiak, A., 1.
Kherson Gov. (Russia).—Samoïlov, J., 3.
Kibbanhalli (Mysore). — Wetherell, E. W., 1.
Kien Valley (Berne).—Gerber, E., 1.
Kiev Gov. (Russia).—Tutkovski, P., 1.
Kimberley (Cape Colony).—Sutton, J. R., 1.
Kimeridge Clay, Yorkshire.—Sheppard, T., 1.
Kimeridgian, Bavaria.—Schmierer, T., 1.
——, Catalonia.—Zeiller, R., 2.
——, Loire.—Lemoine, P., 1.
Kinbrace (Sutherland).—Greenly, E., 1.
KING, C. *See Obit.*, Emmons, S. F., 1.
Kingena.—Dacqué, E., 1.
Kingsthorpe (Northants). — Thompson, B., 1.
Kingston (N.Z.).—Marshall, P., 1.
Kinta (Malay Pen.).—Penrose, R. A. F., Jun., 1.
Kintyre (Scotland).—Gunn, W., 1.
Kippford (Kirkcudbright).—Elsden, J. V., 3.
Kirchblichl (Tyrol).—Dreger, J., 2.
KIRKBY, J. W. *See Obit.*, Horne, J., 3.
Kirunavaara (Norrbotten).—Launay, L. de, 4.
Kitid (Hungary).—Halaváts, J., 1.
Kittatinny Valley (N. J.).—Weller, S., 3.
Kladno (Bohemia).—Weithofer, K. A., 1.
Klamath Mts. (Oreg. & Cal.).—Diller, J. S., 1 & 2; Hershey, O. H., 1, 2, 3, & 4.
Klausen (Tyrol).—Weinschenk, E., 7.
Klippen, Carpathians.—Lugeon, M., 2; Schafarzik, F., 2.
Klondyke (N.W. Canada).—Dawson, G. M., 1; Miers, H. A., 4.
Klosterneuberg (Lr. Austria).—Toula, F., 2.
KNIGHT, W. C. *See Obit.*, Nelson, A., 1.
Knobstone Group, Indiana. — Newsom, J. F., 2.

Knowle (Wilts).—Cunnington, W., 1.
Knoxvillite.—Pettard, W. F., 1.
Knoydart Formation, Nova Scotia. — Ami, H. M., 3.
Kochia.—Maurer, F., 1.
Kolar (Mysore).—Jayaram, B., 1; Primrose, A., 1; Slater, H. K., 1.
Kolberg (Pomerania).—Berendt, G., 1.
Kolozsvár (Hungary). — Lœrenthey, E., 2.
Königsberg (Hesse).—Parkinson, H., 1.
Kopparberg (Svealand).—Launay, L. de, 4.
Kordofan (Sudan).—Linck, G., 6.
Korea (N.E. Asia).—Kotô, B., 1.
Kosva (Urals).—Duparc, L., 5.
Kovel (Volhynia).—Tutkovski, P., 1.
Krakatau (D. E. I.).—Kewitsch, G., 1.
Krapina (Croatia).—Lapouge, G. de, 2.
Krasnovodsk (Transcaspian). — Vernadski, V. S., 1.
Kremsmünster (U. Austria). — Schwab, P. F., 1.
Krennerite.—Smith, G. F. H., 1 & 2.
Kristinehamn (Värmland).—Blomberg, A., 2.
Kritzendorf (Lr. Austria).—Toula, F., 2.
Krivan Mts. (Hungary).—Uhlig, V., 2.
Kron R. (Alsace-Lorraine). — Valentin, J., 1.
Kulundinske Steppe (Tomsk Gov.). — Tanfilïev, G. I., 1.
Kumaon (N.W. India).—Stephens, F. J., 1 & 2.
Kunigal (Mysore).—Wetherell, E. W., 2.
Kunzite.—Baskerville, C., 1.
Kurrajong Heights fault (N.S.W.). — David, T. W. E., 1.
Kuss (Dalecarlia).—Lœfstrand, G., 1.
Kustarachne.—Melander, A. L., 1.
Kyffhäuser Mts. (Thuringia).—Luedecke, O., 1; Naumann, E., 1.
Kyrkslätt (Finland).—Rosberg, J. E., 1.

Labradorite, Kherson.—Samoïlov, J., 3.
Laccolites, Caucasus.—Dervis, V., 1.
Lachat, H. *See Obit.*, Termier, P., 1.
Lochs. *See* Lakes.
Lacoe, R. D. *See Obit.*, White, D., 1.
Ladrones Is. (Pacific).—Skeats, E. W., 1.
Laekenian, Belgium.—Forir, H., 1.
Lagena.—Schick, T., 1; Weller, S., 1.
Lagenostoma.—Oliver, F. W., 1.
Lägern Mt. (Aargau).—Muehlberg, F., 2.
Lagoons, Russia (S.).—Sokolov, N., 1.
Laharpeia.—Prever, P., 1.
Lähn (Silesia).—Scupin, H., 1.
Lahn R. (Nassau).—Bellringer, J., 2.
Lahr (Baden).—Salomon, W., 2.
Lake-deposits, Como.—Artini, E., 2.
—— ——, Germany (N.).—Jentzsch, A., 1.
Lake District, English.—Postlethwaite, J., 1.
Lake-water, chemical composition of Swiss.—Burcart, E., 1; colour of, Snowdon.—Dakyns, J. R., 1.
Lakes, American glacial.—Upham, W., 5.
——, Balkan Peninsula. — Peucker, K., 1.
——, Canada.—Bell, J. M., 1.
——, Cheviot glacier.—Kendall, P. F., 3.
——, Engadine (Upper). — Delebecque, A., 1.
——, Gotland (W.).—Kjellén, R., 2.
——, Italian (S.) Quaternary.—Lorenzo, G. de, 2.
——, Mexico (New & Old).—Keyes, C. R., 5.
——, Montana.—Elrod, M. J., 1.
——, Scotland. — Johnston, T. N., 1; Murray, Sir J., 1.
——, Sundgau.—Klæhn, G., 1.
——, Swiss.—Burcart, E., 1; Preller, C. S. Du R., 1; Forel, F. A., 2.
——, underground, Swiss Jura.—Forel, F. A., 2.
——, Vosges.—Van Werveke, L., 7.
——, Wales (N.).—Jehu, T. J., 1.
——, Wisconsin.—Fenneman, N. M., 1.
Lamberhurst (Sussex).—Thorpe, T. E., 1.
Lamellibranchiata, Carboniferous. — Beede, J. W., 1; Hind, W., 1, 4, & 7; Yakovlev, N., 4; Parkinson, H., 1; Whitfield, R. P., 1.
——, Cretaceous.—Antula, J., 1; Burckhardt, C., 1; Dacqué, E., 1; Douvillé, H., 5 & 6; Etheridge, R., Fil., 2; Franchis, F. de, 1; Hœrnes, R., 2; Paulcke, W., 1, Pethœ, J., 3; Petrascheck, W., 1; Schubert, R. J., 3; Shattuck, G. B., 1; Stanton, T. W., 1 & 2; Toucas, A., 2; Weller, S., 1; Whitfield, R. P., 3; Wollemann, A., 1; Woods, H., 1.
——, Defrance Collection.—Bigot, A., 2.
——, Devonian. — Drevermann, F., 2; Kayser, E., 1; Maurer, F., 1; Walther, K., 1; Weller, S., 2.
——, Jurassic. — Bistram, A. von, 1; Kitchin, F. L., 1; Newton, R. B., 1; Sokolov, N., 2.
——, morphology of.—Ruedemann, R., 1.
——, Permian.—Hind, W., 3; Yakovlev, N., 1.
——, Quaternary.—Dall, W. H., 1; Dennant, J., 3; Johnson, J. P., 1.
——, Silurian.—Weller, S., 2.
——, Tertiary. — Blanckenhorn, M., 2; Casey, T. L., 1; Crema, C., 1; Dainelli, G., 3; Dall, W. H., 1 & 3; Dennant, J., 3; Depéret, C., 4; Dollfus, G. F., 4 & 6; Dreger, J., 2; Fœrster, B., 5; Gorjanović-Kramberger, K., 2; Martelli, A., 1; Nelli, B., 1; Oppenheim, P., 6; Pavlov, P. S., 2; Ugolini, R., 4; Vincent, E., 2.
——, Triassic.—Bittner, A., 1; Frech, F., 1; Tornquist, A., 3.

Lamna.—Eastman, C. R., 2; Koch, A., 4; Leriche, M., 1.
Lampadocorys.—Airaghi, C., 2.
Lamprophyre, Geneva erratics.—Duparc, L., 3.
——, New South Wales.—Card, G. W., 3.
Lancashire.—Anon., 18; Arber, E. A. N., 2; Baldwin, W., 1; Dickson, J., 2; Hind, W., 1 & 2; Lomas, J., 2; Pickstone, W., 2; Reade, T. M., 1.
Lance Creek (Wy.).—Hatcher, J. B., 1.
Land, changes of level, Britanny.—Montessus de Ballore, F. de, 1.
——, ——, England (S.E.). — Monckton, H. W., 5; Massachusetts. — Tarr, R. S., 1; Naples (Bay of).—Guenther, R. T., 1; Scandinavia.—Sernander, R., 2.
LANDON, J. *See Obit.*, Lapworth, C., 1.
Landskron (Bohemia).—Tietze, E., 1.
Landslips, Alberta Terr.—Brewer, W. M., 2; Lakes, A., 11.
——, Colorado.—Lay, H. C., 1.
——, Germany (N.).—Jentzsch, A., 2.
——, Sweden.—Sjœgren, H., 1.
Languedoc (France).—Angelis d'Ossat, G., 4; Carez, L., 1; Depéret, C., 2; Michel-Lévy, A., 1.
Lansing (Kan.).—Holmes, W. H., 1; Pearson, K., 1; Shimek, B., 1; Upham, W., 1 & 4; Winchell, N. H., 3.
Lantern, mineralogical projection. — Brauns, R., 2.
Lanterna Valley (Lombardy).—Brugnatelli, L.
Laramie Formation.—Hay, O. P., 2; Whitfield, R. P., 3.
Lasmogyra.—Felix, J., 2.
Laterite.—Du Bois, G. C., 1; Elsden, J. V., 1; Holland, T. H., 2; Warth, H., 1.
Lates.—Gorjanovič-Kramberger, K., 1.
Latimæandraræa.—Felix, J., 2.
Latrunculus.—Cossmann, M., 2.
Laubach (Hesse).—Klemm, G., 2.
Laufbach Valley (Baden). — Futterer, K., 1.
Laurentian, Ontario.—Graton, L. C., 1.
—— peneplain, Canada.—Wilson, A. W. G., 1.
Lauriano (Campania).—Parona, C. F., 1.
Laurus.—Knowlton, F. H., 1.
Lausanne (Vaud). — Lugeon, M., 5; Renevier, E., 1 & 2.
Lausitz (Saxony).—Nessing, R., 1.
Lava-plugs. *See* Volanic plugs.
Lavas, Arizona.—Reagan, A. B., 2 & 3.
——, Vesuvius.—Matteucci, R. V., 1; Medanich, G., 1.
——, West Indies.—Sapper, K., 8.
Laziale volcano (Romagna).—Verri, A., 5.
Lea R. (Herts).—Fitzmaurice, M., 1; Saunders, J., 1.
—— Valley reservoirs (Essex).—Holmes, T. V., 2.
Lead, Alston Moor.—Nall, W., 1.
——, Arkansas.—Branner, J. C., 2.
Lead, Bavaria.—Kohler, E., 1; Weinschenk, E., 8.
——, Britanny.—Kerforne, F., 4.
——, Cornwall & Devon.—Collins, J. H., 1.
——, determination of, in ore.—Bull, I. C., 1.
—— -glance.—Zimanyi, K., 1.
——, Mexico.—Malcolmson, J. W., 1.
——, Mississippi Valley.—Keyes, C. R., 2.
——, Missouri.—Bain, H. F., 2.
——, Montana.—Weed, W. H., 7.
——, Moravia.—Kretschmer, F., 1.
——, New South Wales.—Beaumont, E. K., 1; Warren, J., 1.
——, Old Red Sandstone, Scotland.—Mackie, W., 6.
——, Parapara.—Park, J., 2.
——, Sardinia.—Rimatori, C., 1.
——, Servia.—Djlagoi, M. T., 1.
——, Silesia.—Guerich, G., 2.
——, Tasmania.—Waller, G. A., 2.
——, Taunus Mts.—Delkeskamp, R., 2.
——, Tyrol.—Weinschenk, E., 7 & 8.
——, United States.—Day, D. T., 1; Kirchoff, C., 2.
Lebanon (Palestine).—Nehring, A., 1.
Lecanites.—Airaghi, C., 1; Schellwien, E., 1.
Lecce (Apulia).—Franchis, F. de, 1; Taramelli, T., 4.
LE CONTE, J. *See Obit.*, Christy, S. B., 1.
Leda.—Dainelli, G., 3.
Ledian, Belgium.—Forir, H.
Ledopsis.—Maurer, F., 1.
Leffe (Lombardy).—Tacconi, E., 2.
Leicester.—Biggs, J. T., 1.
Leicestershire.—Anon., 28; Bennett, F. W., 1; Fox-Strangways, C., 1; Louis, D. A., 1; Watts, W. W., 1; Woodward, H. B., 6.
Leighton Buzzard (Beds).—Lamplugh, G. W., 7.
Leiomyalina.—Bœhm, G., 1.
Leiopedina.—Checchia-Rispoli, G., 1.
Leipzig (Saxony).—Credner, H., 1.
Leitha-limestone, Austria.—Fuchs, T., 3.
Leitrim (Ireland).—Cole, G. A. J., 6 & 7.
LEMBERG, J. *See Obit.*, Lœwinson-Lessing, F., 2.
Lemberg (Styria).—Láska, W., 1.
Lemur, fossil.—Smith, G. E., 1; Wortman, J. L., 1.
Lena R. (Siberia).—Gerasemov, A. P., 1 Obruchev, V., 1.
Leny Grit.—Cunningham-Craig, E. H., 1.
Léon, Prov. of (Spain).—Mallada, L., 1.
Leona Heights (Cal.).—Schaller, W. T., 1.
Leonite.—Van't Hoff, J. H., 5.
Leperditella.—Weller, S., 2.
Lepidocyclina.—Oppenheim, P., 6.
Lepidolite.—Baumhauer, H., 3; Pratt, J. H., 1.

Lepidotus.—Sauvage, H. E., 2.
Leptocheirus.—Merriam, J. C., 1.
Leptodesma.—Bistram, A. von, 1.
Leptodomus.—Maurer, F., 1; Walther, K., 1.
Leptograptus.—Elles, G. L., 1.
Leptolepis.—Sauvage, H. E., 2.
Leptophyllia.—Shattuck, G. B., 1.
Leptoplesictis.—Major, C. I. F., 1.
Lerida (Spain).—Sauvage, H. E., 1.
LESLEY, J. P. *See Obit.*, Frazer, P., 1; Halberstadt, B., 1; Lyman, B. S., 3.
Lesnewth Slates, Cornwall.—Parkinson, J., 1.
Lesse R. (Belgium).—Van den Broeck, E., 15.
Leuciscus.—Lucas, F. A., 5.
Levant du Flenu, mine-flooding, Cuesmes.—Kersten, J., 1.
LEWIS, J. F. *See Obit.*, Raymond, R. W., 2.
Lewis Range (Mont.).—Willis, B., 1.
Lewisham.—Salter, A. E., 2.
Lhotka (Bohemia).—Zelízko, J. V., 1.
Lias, Ariège.—Carez, L., 5.
——, Bornholm.—Mœller, H., 1.
——, Keynsham.—Vaughan, A., 2.
——, Lauriano.—Parona, C. F., 1.
——, Lorraine.—Van Werveke, L., 17.
——, Monmouthshire.—Richardson, L., 2; Vaughan, A., 1.
——, Northants.—Thompson, B., 1–3.
——, Rhenish Prussia.—Mueller, G., 1.
——, Savoy.—Lory, P., 1; Preiswerk, H., 1.
——, Solda Valley.—Bistram, A. von, 1.
——, Switzerland.—Lory, P., 1.
——, Umbria.—Lotti, B., 1.
——, Vendée.—Chartron, C., 1.
——, Würtemberg.—Schick, T., 1.
——. *See also* Jurassic.
Libellula.—Pampaloni, L., 1.
Lichas.—Reed, F. R. C., 1; Walther, K., 1.
Liége (Belgium).—Cornet, J., 1; Destinez, P., 1; Fourmarier, P., 1 & 3; Gevers-Orban, E., 1.
Lienz (Tyrol).—Geyer, L., 1.
Liévin (Pas-de-Calais).—Desailly, —, 1; Gosselet, J., 5; Stainier, X., 1.
Life on the earth, advent of.—Meunier, S., 17; Life-periods, geological.—Woodward, H., 12; *see also* Evolution, &c.
Lignite, Ain.—Chanel, E., 1.
——, Calabria.—Stefano, G. de, 4.
——, Venetia.—Taramelli, T., 2.
Liguria (Italy).—Capellini, G., 2; Cortese, P., 1; Figari, L., 1; Franchi, S., 1 & 2; Pellati, N., 1; Ristori, G., 2; Sacco, F., 2.
Lilla Elgsjön (Gotland).—Nordenskjœld, I., 1.
Lille (Nord).—Lebrun, —, 1.
Lillianite.—Pettard, W. F., 1.
Lima.—Bistram, A. von, 1; Longhi, P., 1; Shattuck, G. B., 1; Wollemann, A., 1; Yakovlev, N., 4.
Liman. *See* Estuaries.
Limatulina.—Hind, W., 4.
Limbourg (Belgium).—Harzé, É., 1 & 2; Lapparent, A. de, 4; Simoëns, G., 4–8; Stainier, X., 1–3; *see also* Campine.
Limestone, Abyssinia.—Raisin, C. A. 1.
——, Carboniferous. *See* Carboniferous.
——, coral-islands.—Skeats, E. W., 1.
——, Creechbarrow.—Hudleston, W. H., 1.
——, crystalline.—Coomáraswámy, A. K., 4.
——, Elba.—Achiardi, G. d', 1.
——, *Helix sylvana*-.—Rollier, L., 2.
——, Ille-et-Vilaine.—Lechartier, G., 1.
——, Ireland.—Elsden, J. V., 6.
——, Italian Liassic.—Parona, C. F., 1.
——, Lombardy.—Sestini, F., 1.
——, Michigan.—Russell, I. C., 2.
——, Mysore.—Primrose, A., 1; Sambasiva-Iyer, V. S., 2; Wetherell, E. W., 4.
——, Ontario.—Graton, L. C., 1.
——, origin of.—Strijov, I. N., 1; Wethered, E. B., 1.
——, Pendleside.—Wellburn, E. D., 1.
——, Prussia (W.), Quaternary.—Jentzsch, A., 4.
——, Tennessee.—Fœrste, A. F., 3.
——, Vermont.—Perkins, G. H., 1.
Limnæus.—Fœrster, B., 5.
Limnocardium.—Andrussov, N., 1; Gorjanovič-Kramberger, K., 2.
Limnosaurus.—Nopčsa, F. von, Jun., 4.
Limousin (France).—Grossouvre, A. de, 5.
Lincolnshire.—Preston, H., 1.
Lindsay, Mt. (N.S.W.).—Andrews, E. C., 2.
Ling Shan (China).—Drake, N. F., 1.
Lingula.—Chapman, F., 1; Etheridge, R., Fil., 2.
Linnarssonella.—Walcott, C. D., 4.
Linth R. (Switzerland).—Penck, A., 1.
Liostracina.—Monke, H., 1.
Lippe-Schaumburg (Germany).—Harbort, E., 1.
Liquidambar.—Knowlton, F. H., 1.
Litharæa.—Felix, J., 2 & 3.
Lithium-minerals.—Pratt, J. H., 1.
Lithothamnium.—Savornin, J., 1.
Litracanthus.—Woodward, A. S., 6.
Little Cottonwood Cañon (Utah).—Emmons, S. F., 2.
Littorina.—Moore, J. E. S., 1.
—— -clay, Gotland.—Post, L. von, 1.
Livingston Range (Mont.).—Willis, B., 1.
Ljubet Mts. (Servia).—Petkov, M. K., 1.
Llannon (Caermarthen).—Strahan, A., 3.
Llyn Llydaw (Snowdon).—Dakyns, J. R., 1.
Lobsann (Alsace).—Andreæ, A., 3 & 4.
Loch-Lomond district (Scotland).—Cunningham-Craig, E. H., 1.

Lœss, Alsace-Lorraine.—Fœrster, B., 4.
——, China.—Wright, G. F., 1.
——, Kansas.—Shimek, B., 1; Upham, W., 1.
——, Nebraska.—Barbour, E. H., 1.
——, Turkestan.—Levat, E. D., 1.
——. *See also* Quaternary,&c.
Loire Basin (France).—Dollfus, G. F., 6; Lamothe, R. de, 1; Lemoine, P., 1.
Loka (Orebro).—Blomberg, A., 1.
Lombardy (Italy). — Airaghi, C., 1; Baltzer, A., 1; Bistram, A. von, 1 & 2; Dainelli, G., 2; Flores, E., 1 & 3; Hammer, V., 1; Hecker, O., 2; Porro, C., 1; Salmojraghi, F., 1; Salomon, W., 1; Sestini, F., 1; Tacconi, E., 2; Taramelli, T., 1.
London.—Bennett, F. J., 1; weathering of building-stone in.—Anon., 33.
London Clay, Berkshire.—Blake, J. H., 1.
Long Hill (Conn.).—Hobbs, W. H., 1.
Long Island (N.Y.).—Fuller, M. L., 3 Veatch, A. C., 1.
Long Plains (Tasmania).—Twelvetrees, W. H., 3.
Lophiodon.—Depéret, C., 1.
Lorenzdorf (Silesia).—Guerich, G., 1.
Lorraine.—Fliche, P., 3 & 4; Herrmann, A., 1; Van Werveke, L., 15–17; Villain, F., 1; *see also* Alsace-Lorraine.
Lossiemouth (Elgin).—Boulenger, G. A., 1.
Lot (France).—Moureé, G., 2; Viré, A., 1.
Louisiana (U.S.A.). — Dall, W. H., 2; Hilgard, W. H., 1.
Lovén, S. *See Obit.*, Théel, H., 1.
Löwenberg (Silesia).—Scupin, H., 1.
Lowestoft (Suffolk).—Whitaker, W., 1.
Loxonema. — Chartron, C., 1; Weller, S., 2.
Lubu (Rhodesia).—Molyneux, A. J. C., 1.
Lucaci massif (Rumania).—Butureanŭ, V. C., 1.
Luchon (Haute-Garonne).—Moissan, H., 1.
Lucina.—Casey, T. L., 1; Vincent, É., 2; Weller, S., 1.
Ludlow (Shropshire).—Moore, H. C., 1.
Lugano, Lake (N. Italy).—Bistram, A. von, 2.
Lune R. (Lancs.).—Reade, T. M., 1.
Lüneburg (Hanover).—Wollemann, A., 1.
Luossavaara (Norbotten).—Launay, L. de, 4.
Lussan (Gard).—Pellat, E., 1.
Lutetian, Sudan.—Lapparent, A. de, 2, 7 & 8; *see also* Tertiary.
Lutraria.—Dollfus, G. F., 6.
Luxemburg (Belgium).—Delvaux, E., 1.
—— (Grand Duchy).—Benecke, E. W., 1; Van Werveke, L., 12 & 15.
Luzonite.—Stevanovič, S., 1.
Lycopodiaceæ, Trias.—Fliche, P., 4.
Lycosuchus.—Broom, R., 4.
Lyell, Mt. (Tasmania).—Stewart, H., 1.
Lyginodendron.—Lomas, J., 4; Oliver, F. W., 1.
Lyon Co. (Kan.).—Smith, A. J., 1.
Lyria.—Casey, T. L., 1.
Lytoceras.—Fucini, A., 2; Uhlig, V., 1; Yabe, H., 1.

Maccoyella.—Etheridge, R., Fil., 2.
Macdonnell Range (N. Terr., S. Austral.).—Brown, H. Y. L., 2.
Macedonia (Turkey).—Peucker, K., 1.
Macerata (Marches, Italy).—Moderni, P., 1.
Machairodus.—Ameghino, F., 2; Dawkins, W. B., 1.
Mackay district (Queensl.).—Cameron, W. E., 3.
Macpherson, J. *See Obit.*, Barrois, C., 4; Belinfante, L. L., 1.
Macrocallista.—Etheridge, R., Fil., 2.
Macrocephalites.—Burckhardt, C., 1.
Macrodon.—Yakovlev, N., 4.
Macrodus.—Drevermann, F., 2.
Macrostachya.—Nathorst, A. G., 1.
Madagascar.—Arnaud, A., 2; Grandidier, G., 1 & 2; Lacroix, A., 11; Lambert, J., 1; Lemoine, R., 1; Lorenz, L. von, 1.
Madre, Sierra (Mexico).—Weed, W. H., 3.
Mæandrastræa.—Felix, J., 2.
Maes - Têg (Glamorgan). — Strahan, A., 5.
Maestrichtian, Hainault.—Cornet, J., 4.
Magdeburg (Prussia).—Wahnschaffe, F., 1.
Magmas, rock.—Ippen, J. A., 1 & 5; Lenarčič, J., 2; Linck, G., 4; Matteucci, R. V., 1; Schweig, M., 1; Weinschenk, E., 4.
Magnesian Limestone, Durham. — Abbott, G., 1.
Magnesian salt - deposits, Germany. — Ochsenius, C., 1.
Magnetic iron-ore, Germany.—Berg, G., 1; Lotz, H., 2; *see also* Magnetite.
—— variations, Puy - de - Dôme. — Brunhes, B., 1 & 2; Ries.—Schmidt, A., 1.
Magnetism, rock.—Brunhes, B., 1.
Magnetite.—Bajetz, M. J., 1; Bœris, G., 1; Bonney, T. G., 3; Harbort, E., 2; Launay, L. de, 2; Primrose, A., 1; Reiss, H., 1.; Scrivenor, J. B., 3; Struthers, J., 15; Thomæ, W. F. A., 1.
Maine (U.S.A.).—Willis, B., 2.
Mainz (Hesse).—Schuster, W., 1; Steuer, A., 2.
Majanthemophyllum. — Penhallow, D. P., 1.
Malay Peninsula.—Penrose, R. A. F., Jun., 1.
Maldives (Indian Ocean). — Gardiner, J. S., 1.
Malga Gardone (Tyrol).—Ippen, J. A., 6.

Malla Johar (Hundés).—Krafft, A. von, 1.

Malletia.—Etheridge, R., Fil., 2.

Malmedy (Alsace-Lorraine). — Van Werveke, L., 1.

Malvern, ancient Straits of.—Callaway, C., 3.

Mammalia, brains of fossil lemurs, &c. —Smith, G. E., 1.

——, Cretaceous. — Ameghino, F., 2; Wortman, J. L., 1.

——, evolution of.—Lydekker, R., 2.

——, Jurassic.—Broom, R., 2.

——, Quaternary.—Bate, D. M. A., 1; Boule, M., 2; Dœderlein, L., 1 & 2; Hepburn, D., 1; Koch, A., 3; Křiz, M., 1; Lucas, F. A., 4; Matthew, W. D., 6; Munro, R., 1; Newton, E. T., 2; Rutot, A., 5; Seguenza, L., 2; Sheppard, T., 3; Stingelin, T., 1; Stromer, E. von, 5; Toula, F., 4.

——, skulls of.—Osborn, H. F., 1.

——, subfossil.—Eastman, C. R., 2.

——, Tertiary.—Alessandri, G. de, 1; Ameghino, F., 1–5; Andrews, C. W., 3; Dawkins, W. B., 1; Deninger, K., 1; Depéret, C., 1 & 3; Flores, E., 2; Fœrster, B., 5; Lankester, E. R., 1 & 2; Lucas, F. A., 3; Major, C. I. F., 1; Matthew, W. D., 1–5; Nordenskjœld, E., 1, 2; Osborn, H. F., 1–4; Schottler, W., 1; Scott, W. B., 1; Stehlin, H. G., 2; Stromer, E. von, 2–4; Ugolini, R., 2; Van Oort, E. D., 1; Venukov, P. I., 1; Wortman, J. L., 1.

——. *See also* Edentata, Mammoth, Man, &c.

Mammoth, Hull.—Sheppard, T., 3.

——, Siberia.—Herz, O., 1; Kaschen, N., 1; Rein, J., 1; Tolmashev, I. P., 1; Woodward, A. S., 9.

Man, advent of, America.—Matthew, G. F., 2.

——, America (N.).—Hrdlička, A., 1; Sternberg, C. H., 1; *see also* Lansing.

——, antiquity of.—Rutot, A., 6.

——, Cornwall.—Bullen, R. A., 2.

——, Ealing prehistoric.—Brown, J. A., 1.

——, earth &.—Meunier, S., 17.

——, Lansing (Kan.).—Holmes, W. H., 1; Pearson, K., 1; Shimek, B., 1; Upham, W., 1 & 4; Winchell, N. H., 3.

——, Mentone.—Richardson, R., 1.

——, Palæolithic. — Freckelton, T. W., 1; Reid, C., 3.

——, Quaternary. — Gaudry, A., 1 & 2; Gould, C. N., 1; Hepburn, D., 1; Kříz, M., 1; Lapouge, G. de, 2; Macnamara, N. C., 1; Salomon, W., 2; Schœtensack, O., 1; Walkhoff, O., 1.

Man, I. of.—Bonney, T. G., 4; Elsden, J. V., 2; Gill, E. L., 1; Lamplugh, G. W., 5; Lomas, J., 1.

Manaar, Gulf of (Ceylon, &c.).—Lomas, J., 6.

Mancalla.—Lucas, F. A., 7.

Manchester (Lancs).—Arber, E. A. N., 2; Pickstone, W., 2.

Manganese, Canada.—Ingall, E. D., 2.

—— dioxide, sedimentary rocks &.—Mackie, W., 3.

——, Nassau.—Bellinger, J., 1 & 2.

——, Taunus Mts. — Delkeskamp, R., 2.

——, United States.—Birkinbine, J., 2 Day, D. T., 1.

Mangilia.—Cossmann, M., 2.

Manhasset Formation, Long I. (N.Y.). —Fuller, M. L., 3.

Manitoba (Canada).—Ami, H. M., 8.

Manlius Formation, N.Y. — Schuchert, C., 3.

MANSEL-PLEYDELL, J. C. *See Obit.*, Woodward, H. B., 3.

Maps, Swedish geological, previous to 1850.—Lœnborg, S., 1.

MAPS.

WORLD. Volcanoes and earthquake-charts.—Milne, J., 1; Miron, F., 1; Russell, I. C., 2 & 4.

AFRICA (EQUATORIAL).

Aqueous deposits, Albert Nyanza to Zambesi, 1 inch = about 60 miles; Lake Tanganyika, 2½ inches = about 70 miles; & Tanganyika to Albert Nyanza, 2½ inches = about 70 miles. 1903.—Moore, J. E. S., 1.

—— (EAST), German. Mineral-occurrences. 1 inch = 260 kilom. 1903. Macco, A., 1.

AFRICA (NORTH).

ALGERIA. Service de la Carte géologique. $\frac{1}{50,000}$. Sheets 22, 43, 63, 73, 83, 86, 103, 104, & 208–239. 1902–3. —Ficheur, E., 1.

——. ——. Tectonic map of S. Algerian Mts. $\frac{1}{800,000}$. 1902.—Ritter, E., 1.

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——. ——. Mersa Matru & Ras Allen Rum, surface-deposits. $\frac{1}{25,000}$. 1903.—Ball, J., 2.

——. ——. Eastern Desert, $\frac{1}{500,000}$; Jebel Duwi, $\frac{1}{100,000}$; Barud & Maderaba, $\frac{1}{50,000}$; Jebel Zeit & Jemsa, $\frac{1}{250,000}$ & $\frac{1}{75,000}$. 190 .—Barron, T., 1.

—— (Upper). Semna Cataract. $\frac{1}{4000}$. 1903.—Ball, J., 1.

SUDAN. Kordofan. $\frac{1}{2,500,000}$. 1903.—Linck, G., 6.

TUNISIA (Central). $\frac{1}{200,000}$. 1903.—Pervinquière, L., 1.

AFRICA (N.E.).

ABYSSINIA (Southern). 1 inch = 70 miles. 1903.—Raisin, C. A., 1.

AFRICA (N.E.).

Aden, Gulf of. Sokotra. $\frac{1}{250,000}$. 1902.—Kossmat, F., 1.

AFRICA (South).

Cape Colony. Griqualand East, Matatiele. 1 inch=2 miles. 1903.—Schwarz, E. H. L., 1.

——. Kentani. 1 inch = 1¼ miles. 1903.—Rogers, A. W., 4.

Natal. 1 inch=15 miles. 1903.—Gray, C. W., 1.

Rhodesia (Southern). 1 inch = 80 miles. 1903.—Molyneux, A. J. C., 1.

Transvaal, Vredefort granite-mass. 1903.—Sawyer, A. R., 5.

——. Witwatersrand & S. Heidelberg synclines. 1 inch=22 miles. 1902.—Hammond, J. H., 1.

AFRICA (West).

Gold Coast. Tarkwa. 1 inch = 4 miles, & 1 inch=1 mile. 1903.—Sawyer, A, R., 6.

AMERICA (North).

Alaska. Cook Inlet & Kachemak-Bay Coalfield. 1 inch=76 miles & 1 inch=9½ miles. 1903.—Kirsopp, J., Jun., 1.

——. Kitchikan Mining district, 1 inch=12½ miles. 1902.—Brooks, A. H., 3.

——. Seward Peninsula (N.W.). 1 inch=12 miles 1902.—Collier, A. J., 1.

—— (S.E.). *Various.* 1902.—Brooks, A. H., 1–3.

British Columbia. Atlin. 1 inch =4 miles. 1902.—Gwillim, J. C., 1; Kootenay (E.). 1 inch = 4 miles. 1902.—Gwillim, J. C., 1.

——. Queen Charlotte Is. 1 inch= 76 miles. 1903.—Kirsopp, J., Jun., 1; Vancouver I. 1 inch=76 miles. 1903.—Kirsopp, J., Jun., 1.

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——. ——. New Brunswick. Andover & Fredericton (Nos. 1, N.W. & 2, S.W.). 1 inch=4 miles. 1902.—Chalmers, R., 1.

——. ——. Ontario (*various*). 1903.—Ingall, E. D., 1.

——. ——. —— & Quebec. Ottawa City, &c. 1 inch = 1 mile. 1902.—Ells, R. W., 2.

——. ——. Quebec. Grenville. Sheet No. 121. 1 inch=4 miles. 1902.—Ells, R. W., 3.

——. Nova Scotia. Map showing coal & iron-localities. 1 inch = 8 miles. 1903.—Mackinlay, A. & W., 1.

——. Ontario. Michipicoten. 2 inches=1 mile. 1902. — Coleman, A. P., 4.

——. St. Helen's Island. 1 inch= 400 feet. 1903.—Nolan, A. W., 1.

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73. Coos Bay (Oreg.). 1901. By J. S. Diller.
74. Coalgate (Ind. Terr.). 1901. By J. A. Taff.
75. Maynardville (Tenn.). 1901. By A. Keith.
76. Austin (Tex.). 1902. By T. Hill & T. W. Vaughan.
77. Raleigh (W. Va.). 1902. By M. R. Campbell.
78. Rome (Ga. & Ala.). 1902. By C. W. Hayes.
79. Atoka (Ind. Terr.). 1902. By J. A. Taff.
80. Norfolk (Va. & N. Car.). 1902. By N. H. Darton.
81. Chicago (Ill. & Ind.). 1902. By W. C. Alden.
82. Masontown-Uniontown (Pa.). 1902. By M. R. Campbell.
83. New York City (N. Y. & N. J.). 1902. By R. E. Dodge & B. Willis.
84. Ditney (Ind.). 1902. By M. L. Fuller & G. H. Ashley.
85. Oelrichs (S. Dak. & Neb.). 1902. By N. H. Darton.
86. Ellensburg (Wash.). 1903. By G. O. Smith.
87. Camp Clarke (Neb.). 1903. By N. H. Darton.
88. Scotts Bluff (Neb.). 1903. By N. H. Darton.
89. Port Orford (Oreg.). 1903. By J. S. Diller.
90. Cranberry (N. Car. & Tenn.). 1903. By A. Keith.

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—— Coalfields. 1 inch=110 miles. 1902.—Hayes, C. W., 1.

—— (Eastern). Palæographic maps of Onondaga & Hamilton periods (*various*). 1903.—Cleland, H. F. 1.

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Arizona. Fort-Apache Region. 1 inch=about 8 miles. 1903.—Reagan, A. B., 3.

Arkansas coalfield. 1 inch=13 miles. 1902.—Taff, J. A., 1.

—— (N.). Zinc & lead-deposits (*various*). 1902.—Branner, J. C., 2.

—— (S.W.). Chalk-Region. 1 inch =11 miles. 1902.—Taff, J. A., 1.

California. Asphalt, &c. 1 inch =45 miles; *also* San Luis Obispo district. 1 inch=1 mile. 1901.—Eldridge, G. H., 1.

AMERICA (North).

United States.

California. Death Valley & Mohave Desert. 1 inch=30 miles. 1902.—Campbell, M. R., 1.

Carolina (North) coalfields. 1 inch =200 miles. 1902.—Woodworth, J. B., 1.

Colorado. El Moro coalfield. (*No scale.*) 1903.—Hill, R. T., 2.

——. Rico Mts. 2 inches = ¾ mile. 1901.—Ransome, F. L., 1.

Connecticut. Long Hill. 1 inch =300 feet & 1 inch=½ mile. 1901.—Hobbs, W. H., 1.

Dakota (S.). Lead City. 1 inch= 3600 feet. 1902.—Irving, J. D., 1.

—— & Wyoming. Black Hills. 1 inch = 20 miles. 1903.—Richardson, G. B., 1.

Idaho. Snake-River lava. 1 inch= 34 miles. 1902.—Russell, I. C., 4.

Illinois & Indiana coalfield. 1 inch = 34 miles. 1902. — Ashley, G. H., 1.

ndian Territory coalfield. 1 inch =10 miles. 1902.—Taff, J. A., 1.

——. Buckhorn district. 1 inch = ½ mile. 1901.—Eldridge, G. V., 1.

Indiana. Hanover to Vincennes. 1 inch=2 miles. 1903.—Newsom, J. F., 2.

——. Knobstone Area. 1 inch = 3 miles. 1903.—Newsom, J. F., 2.

——. Salem and Corydon sheets, Lower Carboniferous. 1 inch = 2 miles. 1903.—Ashley, G. H., 2.

——. *See also* Illinois.

Iowa. Buena-Vista Co. 1 inch=2 miles. 1902.—Macbride, T. H., 1.

——. Cherokee Co. 1 inch = 2 miles. 1902.—Macbride, T. H., 1.

——. Henry Co. 1 inch=2 miles. 1902.—Savage, T. E., 1.

——. Jefferson Co. 1 inch=2 miles. 1902.—Udden, J. A., 1.

——, Missouri coalfield &. 1 inch= 40 miles. 1902.—Bain, H. F., 1.

——. Wapello Co. 1 inch=2 miles. 1902.—Leonard, A. G., 1.

——. Webster Co., Fort Dodge. 1 inch = 2 miles, & 1 inch = 1 mile. 1902.—Wilder, A. H., 1.

Kentucky. 1 inch=70 miles. 1901. —Eldridge, G. H., 1.

Maryland. Cecil Co. 1 inch = 1 mile. 1902.—Clark, W. B., 4.

——. Coal-Measures. 1 inch = 6 miles. 1902.—Clark, W. B., 2.

——. Garrett Co. 1 inch = 1 mile. 1902.—Clark, W. B., 3.

——, Potomac Group in. 1 inch=8 miles. 1903.—Clark, W. B., 1.

Massachusetts. Gloucester. $\frac{1}{62,500}$. 1903.—Tarr, R. S., 1.

Michigan coalfield. 1 inch = 20 miles. 1902.—Lane, A. C., 1.

AMERICA (North).

United States.

Michigan (Lower Peninsula). 1 inch =35 miles. 1902.—Russell, I. C., 2.

Minnesota. Mesabi iron-district. 1 inch = 1 mile. 1903.—Leith, C. K., 1.

Missouri. Ozark Region (*various*). 1901.—Bain, H. F., 2.

——. *See also* Iowa.

Montana coalfields (*various*). 1903. —Rowe, J. P., 1.

——. Elkhorn District. 2 inches= 1 mile. 1901.—Weed, W. H., 7.

Nebraska (*various*). 1903.—Barbour, E. H., 1.

——. *See also* Wyoming.

New Mexico. Jemez-Albuquerque region. ⅝ inch=3 miles. 1903.—Reagan, A. B., 1.

New York. Cayuga-Lake district. 1 inch = about 6 miles. 1903.—Cleland, H. F., 1.

Ohio. Cadiz district. Contour-map of the Berea-Grit Oil-Sand. 1 inch= 1 mile. 1902.—Griswold, W. T., 1.

——, West Virginia, Maryland, & Pennsylvania N. Appalachian coalfield. 1 inch=40 miles. 1902.—White, D., 3.

Oregon. Blue Mts. 1 inch = 6 miles. 1901.—Lindgren, W., 1.

——. Coos-Bay coalfield. 1 inch=5 miles. 1902.—Smith, G. O., 1.

——. Crater Lake, National Park. 1 inch=2¼ miles. 1902.—Diller, J. S., 3.

Pennsylvania Anthracite coalfield. 1 inch=15 miles. 1902.—Stœk, H. H., 1.

—— & West Virginia coalfields. 1 inch=about 69 miles. 1903.—Heurteau, C. E., 1.

Rocky-Mountain coalfields. 1 inch = 40 miles. 1902. — Stobbs, L. S., 1.

Tennessee & Kentucky. S. Appalachian coalfield. 1 inch=14 miles. 1902.—Hayes, C. W., 2.

Texas. Austin district. 1 inch=2 miles. 1903.—Shattuck, G. B., 1.

Utah & Colorado. Uinta Basin. 1 inch=26 miles. 1901.—Eldridge, G. H., 1.

Vermont (*various*). 1902.—Perkins, G. H., 1.

Virginia. Richmond coalfield. 1 inch=2 miles, & 1 inch=5½ miles. 1902.—Woodworth, J. B., 2.

Washington. 2 inches=95 miles. 1903.—Landes, H., 1.

—— coalfield. 1 inch = 10 miles. 1902.—Smith, G. O., 1.

——. Monte Cristo. 1 inch=2500 feet. 1901.—Spurr, J. E., 1.

Wisconsin. 1 inch = about 120 miles. 1902.—Fenneman, N. M., 1.

AMERICA (North).

United States.

Wyoming. Black Hills, Bear-Lodge Mt. 1 inch=about 6 miles. 1902. Loomis, F. B., 1.

——. North Platte River. 1 inch = 10 miles. 1902.—Adams, G. I., 1.

—— (E.) & Nebraska (W.). 1 inch =$3\frac{3}{4}$ miles. 1902.—Adams, G. I., 1.

AMERICA (Central).

Mexico. Guanajuato District. 1 inch =8000 feet. 1902.—Halse, E., 2.

AMERICA (South).

Brazil. Parahyba do Norte (E.). 1 inch=14 miles. 1902.—Branner, J. C., 1; Pernambuco District. 1 inch = 15 miles. 1902. — Branner, J. C., 1; Rio Grande do Norte. 1 inch =8 miles. 1902.—Branner, J. C., 1.

Chile & Argentina. Volcanoes & volcanic rocks. $\frac{1}{10.000.000}$. 1903. — Hauthal, R., 1.

Patagonia (*various*). 1903.—Scrivenor, J. B., 2.

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Ellesmere Island. 1 inch=135 miles. 1903.—Bonney, T. G., 8; 1 inch = 90 miles. 1903.—Sverdrup, O., 1.

ASIA.

China. Coalfields (*various*). 1902. —Drake, N. F., 1.

India. Coalfields & mineral areas. 1 inch=256 miles. 1903.—Stonier, G. A., 2.

——. Bengal. Chief coalfields. 1 inch =12 miles. 1903.—Stonier, G. A., 2.

——. ——. Chota Nagpur auriferous belt. 1 inch = 32 miles. 1903.—Holland, T. H., 3.

——. Central Provinces. Dhar Forest. 1 inch=16 miles. 1903.—Holland, T. H., 3.

——. ——. Kalahandi State. 1 inch =15 miles. 1902.—Walker, T. L., 1.

——. Himalayas. Hundés. Malla Johar. 1 inch = 1 mile. 1902.—Krafft, A. von, 1.

——. ——. Sikkim. 1 inch=4 miles. 1903.—Freshfield, D. W., 1.

——. Mica-localities, 1 inch = 156 miles; & Bengal mica-belt, 1 inch =4 miles. 1902.—Holland, T. H., 1.

——. Mysore. Chiknayakanhalh schist-belt. 1 inch=1 mile. 1903. —Sambasiva-Iyer, V. S., 1.

——. ——. Kibbanhalli to Seringapatam. 1 inch = 4 miles. 1903. —Wetherell, E. W., 1.

——. United Provinces. Kumaon & Garhwal. 1 inch=24 miles. 1903. —Stephens, F. J., 2.

Japan. Imperial Geological Survey. $\frac{1}{200,000}$ geological map. Sheets:

Zone 2, Col. II. Koshikijima. 1902. —Sekino, S., 1.

Zone 5, Col. V. Uwajima. 1902.—Inouye, K., 1.

Zone 6, Col. VI. Kōchi. 1902.—Ogawa, T., 1.

ASIA.

Japan. Imperial Geological Survey. $\frac{1}{200,000}$ geological map. Sheets:

Zone 7, Col. III. Tsunoshima. 1902. —Sekino, S., (*uncoloured*), 1.

Zone 7, Col. VIII. Wakayama. 1902. —Kanehara, N., 1.

——. Geological map of the Japanese Empire, $\frac{1}{1,000,000}$ (*with inset* General Map, showing the Distribution of Volcanoes, $\frac{1}{5,000,000}$). In 15 sheets. 1902.—Kochibe, T. (Director), 1.

Siberia. Alibert graphite (*no scale*). 1903.—Launay, L. de, 3.

——. Altai District. Barnaul (Gouv. Tomsk). 1 inch=50 versts. 1902. —Tanfiliev, G. I., 1.

——. Minussinsk & Achinsk, $\frac{1}{5,000,000}$; & Nerchinsk, $\frac{1}{5,000,000}$. 1903.—Bordeaux, A., 1.

——. Yenisei Govt. Lake Shira. $\frac{1}{168,000}$. 1903.—Tolmashev, J. P., 1; Pit, Gorbelka & Oderea Rivers. 1 inch=12 versts. 1902.—Ijitzki, N., 1 & 2.

Turkestan. $\frac{1}{12,600,000}$. 1903. — Levat, E. D., 1; Lake Balkash, $\frac{1}{4,200,000}$. 1903. —Levat, E. D., 1; Bukhara, $\frac{1}{3,000,000}$; & 1 inch=80 kilom. 1903.—Levat, E. D., 2; Province-of-Darvaz placers. $\frac{1}{500,000}$. 1903.—Levat, E. D., 2.

ASIA MINOR. Anatolia. Cilicia. $\frac{1}{1,000,000}$. 1903.—Schaffer, F. X., 3.

——. Heraclea coalfield. 1 inch = 8 miles. 1903.—Simmersbach, B., 1.

AUSTRALASIA.

Australia (S.). Clinton rock-phosphates. 1 inch=8 chains. 1903.—Chewings, C., 1.

——. Northern Territory. Arltunga Goldfield. White Range gold-mines. 1 inch = 20 chains. 1902.—Brown, H. Y. L., 1.

—— (W.). Department of Mines. Map showing the goldfields & the distribution of useful minerals. 1 inch=75 miles. 1903.—King, H. S., 1.

—— (—). Murchison goldfield. Cue, &c., auriferous reefs. 1 inch=$\frac{1}{4}$ mile. 1903.—Campbell, W. D., 1.

Borneo, Central & part of South, $\frac{1}{750,000}$; Kapoewas R. basin, $\frac{1}{400,000}$. 1902. —Molengraaff, G. A. F., 1.

New South Wales. Department of Mines, 1902 (*various*). 1903.—Pittman, E. F., 1.

——. Cambewarra Mt., 1 inch = 1 mile; & Good Dog Mt., $\frac{3}{4}$ inch = $\frac{1}{4}$ mile. 1903.—Card, G. W., 3.

——. Kerosene - Shale Deposits (*various*). 1903. — Carne, J. E., 1.

New Zealand. Waihi goldfield (*no scale*). 1902.—Morgan, P. C., 1.

Queensland. Geological Survey. Geological sketch-map. 1 inch= 40 miles. 1902.—Dunstan, B., 3.

AUSTRALASIA.

Queensland. Anakie sapphire-field. 1 inch=2 miles & $\frac{7}{8}$ inch=$\frac{1}{2}$ mile. 1901.—Dunstan, B., 1.

——. Bentinck Is. 1 inch = about 10 miles. 1902.—Jackson, C. F. V., 3.

——. Biggenden District (*various*). 1902.—Ball, L. C., 2.

——. Brisbane & Burnett Rivers (*various*). 1901.—Jackson, C. F. V., 1.; Kangaroo Hills. 1 inch=2 miles. 1901.—Jackson, C. F. V., 1.

——. Brookville goldfield, showing Donnybrook & Erin's Hope Reefs. 1 inch=88 yards. 1903.—Cameron, W. E., 3.

——. Clermont goldfields. 1 inch= 119 chains. 1902.—Dunstan, B., 2.

——. Horn I. 1 inch = 6 chains. 1902.—Jackson, C. F. V., 3.

——. Pioneer R. (*north of*). Mackay & Bowen districts. 1 inch= 2 miles. 1903.—Cameron, W. E., 2.

——. Stanton Harcourt, &c. 1 inch = 20 chains (*& others*). 1901.—Ball, L. C., 1.

——. Yorkey's goldfield. 1 inch= 20 chains, & Yorkey's & Marodian goldfields. 1 inch=1 mile. 1902. —Ball, L. C., 3.

—— (*Western portion*). 1 inch = 24 miles.—Jackson, C. F. V., 3.

Tasmania. Anderson's Creek iron-ore deposits. 1 inch=20 chains. 1903.—Twelvetrees, W. H., 4.

——. Preolenna coalfield. 1 inch=20 chains. 1903.—Twelvetrees, W. H., 2.

——. Zeehan, western silver-mine. 1 inch = 130 feet. 1902.—Waller, G. A., 1.

—— (N.W.). 1 inch = about 25 miles. 1903.—Gregory, J. W., 4.

Victoria. Gippsland. Anderson's Inlet. 1 inch = about 12 miles. 1903.—Kitson, A. E., 3.

——. Heathcote Valley & Colbinablin Range. 1 inch = 40 miles, & 1 inch = $\frac{1}{2}$ mile. 1903.—Gregory, J. W., 3; Yackandandah Creek & Nine Mile Creek. 1 inch=$8\frac{1}{2}$ miles. 1903.—Gregory, J. W., 3.

—— (South Central, including Melbourne). 1 inch=8 miles. 1902. —Kitson, A. E., 1.

Dutch East Indies.

Sumatra (Central). $\frac{1}{100{,}000}$. 1902.—Neeb, E. A., 1.

EUROPE.

Austria-Hungary. K.-k. geologische Reichsanstalt. Geologische Karte, $\frac{1}{75{,}000}$. S.W. Gruppe, nos. 9, 79, 88, 96, & Beilage, 137 *a*, $\frac{1}{25{,}000}$. 1903.—Tietze, E., 4.

——. ——. ——. S.W. Gruppe, no. 70. $\frac{1}{75{,}000}$. 1902.—Geyer, G., 1.

——. ——. ——. S.W. Gruppe, no. 123. $\frac{1}{75{,}000}$. 1902.—Kerner, F. von, 6.

EUROPE.

Austria-Hungary. K.-k. geologische Reichsanstalt. Dalmatia. Spalato (*no scale*). 1903.—Kerner, F. von, 4.

——. Bohemia. Kommittee für Landesdurchforschung. Section V. Prag. $\frac{1}{200{,}000}$. 1903.—Počta, P., 1.

——. Carinthia. Erzberg, near Hüttenberg. $\frac{1}{75{,}000}$. 1903.—Baumgærtel, B., 1.

——. Hungary. Alvincz. $\frac{1}{75{,}000}$. 1902. —Pálfy, M. von, 2.

——. ——. Budapest & Szeged. $\frac{1}{900{,}000}$. 1903.—Treitz, P., 2.

——. ——. Carpathians. $\frac{1}{1{,}500{,}000}$. 1903. —Uhlig, V., 4.

——. ——. Coal-deposits. $2\frac{1}{2}$ inches =69 miles. 1903.—Kalecsinszky, A. von, 2.

——. ——. Danube (Lower). $\frac{1}{115{,}000}$. 1903.—Schafarzik, F., 5.

——. ——. Kriván Mts. (Little). $\frac{1}{75{,}000}$. 1902.—Uhlig, V., 2.

——. ——. Mehádia & the Baths of Hercules. $\frac{1}{75{,}000}$. 1903.—Schafarzik, F., 5.

——. ——. Neutra district (S.). 1 inch=4 miles. 1903.—Horusitzky, H., 2.

——. ——. Palics Lake district. $\frac{1}{750{,}000}$. 1903.—Treitz, P., 3.

——. Moravia. Müglitz. $\frac{1}{75{,}000}$. 1903. —Kretschmer, F., 1.

——. Styria (U.). Walchen mines, near Œblarn. $\frac{1}{40{,}000}$. 1903.—Redlich, K. A., 1.

——. Tyrol. Monzoni & Upper Fassa Valley. $\frac{1}{25{,}000}$. 1903.—Gordon, M. M. O., 1.

Belgium. Campine coalfield. 1 inch =15·6 miles & 1 inch = 47 miles. 1903.—Harzé, E., 2; $\frac{1}{320{,}000}$. 1903. Kersten, J., 2; $\frac{1}{400{,}000}$. 1903.—Van Ertborn, O., 10; & Westphalia, $\frac{1}{160{,}000}$ & $\frac{1}{500{,}000}$. 1903.—Lohest, M., 1.

Denmark. Jutland moraines. 1 inch =9 kilom. 1903.—Ussing, N. V., 1.

France. Geological map. 1 inch= 190 kilom. 1903.—Lapparent, A. de, 10.

——. Ain. Ambérieu, &c. $\frac{1}{80{,}000}$. 1902. —Boistel, A., 1.

——. Ariège. Saint-Girons. $\frac{1}{80{,}000}$. 1903.—Carez, L., 5; Ariège & Haute-Garonne. Boussens, St. Matory &c. $\frac{1}{200{,}000}$. 1903.—Carez, L., 4.

——. Basses-Pyrénées. Biarritz. $\frac{1}{10{,}000}$. 1903.—Carez, L., 6; Biarritz & Bidart. $\frac{1}{20{,}000}$. 1902.—Bertrand, L., 1.

——. Britanny. Crozon Penin. $\frac{1}{160{,}000}$. 1902.—Barrois, C., 5.

——. Burgundy. Blanzy & Le Creusot. $\frac{1}{50{,}000}$. 1902.—Delafond, F., 1.

EUROPE.

France. Pas-de-Calais coalfield. $\frac{1}{80,000}$. 1902.—Dobers, —, 1.

——. Service de la Carte géologique. Carte géologique détaillée de la France. $\frac{1}{80,000}$. Michel-Lévy, A. (Directeur), 1.

128 & 129. Ile d'Yeu & Palluau. 1902. Par F. Wallerant.

142. Niort. 1903. Par J. Welsch.

156. Aubusson. 1902. Par L. de Launay.

230. Toulouse. 1902. Par G. Vasseur, — Blayac, J. Savornin, & J. Répelin.

——. Vaucluse. Cucuron. $\frac{1}{20,000}$. 1903.—Savornin, J., 2.

——. *See also* England.

Germany.

Alsace-Lorraine. Altkirch. $\frac{1}{100,000}$. 1892.—Fœrster, B., 5.

——. Balbronn. $\frac{1}{25,000}$. 1896. —Steuer, A., 1.

——. Donon, The. $\frac{1}{50,000}$. 1896.—Andreæ, A., 3.

——. Geologische Specialkarte. $\frac{1}{25,000}$. Sheets 5, 6, 10, 11, 15–18, 22–29, 33, 34, 38–43, 52, 53, 75, 130, 132, 134. 1889–1902.—Benecke, E. W., 6.

——. Kron Valley. $\frac{1}{25,000}$. 1890.—Valentin, J., 1.

——. Rappoltsweiler. $\frac{1}{250,000}$. 1888. —Van Werveke, L., 5.

——. Saärbrucken coalfield. $\frac{1}{200,000}$. 1886.—Meyer, G., 1.

Baden. Geologische Specialkarte, $\frac{1}{25,000}$.

109. Furtwangen, 1903.—Schalch, F., 3.

119. Neustadt, 1903.—Schalch, F., 2.

——. Black Forest. $\frac{1}{100,000}$. 1902.——Steinmann, G., 2; Zweisimmer district. $\frac{1}{50,000}$. 1903.—Keidel, H., 1.

Bavaria. Donauwörth. 1 inch = 4 kilom. 1903.—Knebel, W. von, 2.

——. Obernzeil. $\frac{1}{100,000}$. 1903. —Launay, L. de, 3; Pfaffenreuth. $\frac{1}{146,000}$. 1903.—Launay, L. de, 3.

Hanover. Deistergebirge & Bad Neudorf. $\frac{1}{50,000}$. 1902.—Stille, H., 1.

——. Weser & Jade River-mouths. $\frac{1}{300,000}$. 1903.—Schucht, F., 1.

Hesse. Homberg on the Efze. $\frac{1}{50,000}$. 1903.—Schultz, W., 1.

——. Rhein-Hessen. Nahe & Wies River-junction. $\frac{1}{25,000}$. 1903. —Schopp, H., 1.

Nassau. Marburg a. Lahn & Herborn. $\frac{1}{200,000}$. 1903.—Walther, K., 1.

Prussia. Brandenburg. Fläming. $\frac{1}{100,000}$. 1903.—Linstow, O. von, 1.

——. Schleswig-Holstein. Kaiser-Wilhelm-Kanal. $\frac{1}{500,000}$. 1903.—Zeise, O., 1.

EUROPE.

Prussia. Schleswig-Holstein, Mecklenburg, &c. $\frac{1}{500,000}$. 1903.—Frech, F., 2.

Saxony. Sohland on the Spree. $\frac{1}{25,000}$. 1903.—Beck, R., 1.

Silesia. Riesengebirge. Schmiedeberg. $\frac{1}{25,000}$. 1903.—Berg, G., 1.

Westphalia. Eggegebirge. $\frac{1}{50,000}$. 1903.—Stille, H., 2.

——. *See also* Belgium.

Würtemberg. Heid. $\frac{1}{2,500}$. 1903. —Endriss, K., 1.

Great Britain and Ireland.

British Isles. 1 inch=120 miles. 1903.—Marr, J. E., 1.

England and France. Chalk-occurrence in. 1 inch=24 miles. 1903. —Jukes-Browne, A. J., 6.

——. Triassic pebbles. 1903. —Shrubsole, O. A., 1.

England and Wales. Bedfordshire. Leighton Buzzard. 1 inch=2 miles. 1903.—Lamplugh, G. W., 7.

——. Cornwall. Cligga Head. 1½ inches=1 mile. 1903. — Scrivenor, J. B., 1.

——. ——. Tintagel & Davidstow District. 1 inch = 1 mile. 1903. —Parkinson, J., 1.

——. —— (W.). 1 inch=4 miles. 1903.—Hill, J. B., 1.

——. —— & Devon. 1 inch = 12 miles. 1903.—Collins, J. H., 1.

——. Derbyshire. Buxton. District round Victoria Quarry. 6 inches= 1 mile. 1903.—Dawkins, W. B., 1.

——. Devon. Cenomanian Sea. 1903. —Jukes-Browne, A. J., 4; Teign Valley. 1 inch = 2 miles. 1903. —Lowe, H. J., 1.

——. Dorset. Creechbarrow. 4 inches = 1 mile. 1902.—Hudleston, W. H., 1.

——. Geological Survey. 1-inch geological map, n. s. Sheet 156. Leicester. 1903.—Fox-Strangways, C., 2.

——. ——. ——. N. s. 232. Abergavenny (Solid). 1902. — Dakyns, J. R., 3.

——. ——. ——. N. s. 248. Pontypridd (Solid). 1902.—Strahan, A., 5.

——. ——. ——. N. s. 249. Newport (Solid). 1902. — Strahan, A., 4.

——. ——. ——. N. s. 298. Salisbury (Drift). 1902.—Reid, C., 4.

——. ——. ——. N. s. 317. Chichester. 1903.—Reid, C., 5.

——. ——. Staffordshire. Cheadle coalfield. 1 inch = 1 mile. 1903. —Barrow, G., 1.

——. ——. Man, I. of. 1 inch = 4 miles. 1903.—Lamplugh, G. W., 5.

EUROPE.

Great Britain and Ireland.

England and Wales. Glamorganshire. South Trough of Coalfield. 1 inch=1 mile. 1903.—Jordan, H. K., 1.

——. Gloucestershire. Cowley District. 1 inch = 4 miles. 1903.—Richardson, L., 1.

——. Hertfordshire. 1 inch = 4 miles. 1903.—Hopkinson, J., 2; Royston. 1 inch=2 miles. 1903.—Woodward, H. B., 2.

——. Leicestershire. Charnwood Forest. 1 inch=1·183 miles. 1903.—Watts, W. W., 1.

——. Norfolk. 1 inch=9 miles. 1903.—Elsden, J. V., 5.

——. Staffordshire. Congleton Edge. 4 inches = 1 mile. 1903. —Hind, W., 6.

—— Suffolk. Ipswich, &c. 1 inch = 4 miles. 1903.—Jukes-Browne, A. J., 3.

——. Wiltshire. Vale of Wardour. $\frac{2}{5}$ inch=1 mile. 1903.—Andrews, W. R., 1.

——. Yorkshire. Cleveland glaciers and glacier-lakes. 1 inch=8 miles. 1903. — Clark, J. E., 1; (East Riding). 1 inch=8 miles. 1903.—Robinson, J. F., 1; 1903. 1 inch=8 miles.—Sheppard, T., 6; Harrogate, Skipton, &c. 1 inch=2 miles. 1903.—Smith, W. G., 1; Yorkshire & Durham. Teesdale. The Great Whin Sill. 1903. — I'Anson, J. C., 1.

Ireland. Geological Survey. 1-inch map, no. 112. Dublin (Drift). 1902.—Egan, F. W., 1.

——. Dublin Co. Montpelier Hill. 4 inches=1 mile. 1903.—Wright, W. B., 1.

——. Wicklow. Donard. 1 inch=1 mile. 1903.—Seymour, H. J., 2.

Scotland. Lothian coal and oil-shalefields. 1 inch=2 miles. 1902.—Cadell, H. M., 1.

——. Rum. 1 inch=1 mile. 1903.—Harker, A., 2.

——. Tiree. 6 inches = 1 mile & 12 inches=1 mile. 1903.—Coomáraswámy, A. K., 4.

Greece. Eubœa. $\frac{1}{600,000}$. 1903. — Deprat, J., 1.

Italy. Basilicata. Agri, Mercure & Noce River-basins. $\frac{1}{100,000}$. 1898.—Lorenzo, G. de, 2; Monte Volture. $\frac{1}{100,000}$. 1900.—Lorenzo, G. de, 3.

——. Campania. Mignano. $\frac{1}{100,000}$. 1902.—Sabitini, V., 1; Phlegræan Fields, Astroni Crater. $\frac{1}{25,000}$. 1902.—Lorenzo, G. de, 6.

——. Lombardy. Lake Lugano District. $\frac{1}{50,000}$. 1903. — Bistram, A. von, 2.

EUROPE.

Italy. Tuscany. Mte. Amiata. $\frac{1}{100,000}$. 1903.—Verri, A., 4; Carrara. 1 inch = 2 miles. 1903. — Elsden, J. V., 9; Siena district. $\frac{1}{100,000}$. 1903.—Verri, A., 3.

——. Venetia. Agorda district. 1 inch =2 miles. 1903.—Keyserling, H. von, 1.

Norway. Dunderland Iron-ore Deposits, 1 inch=5 km.; Ofotenfjord ditto, 1 inch = 13 km. 1903.—Vogt, J. H. L., 2.

Russia. Kharkov. Donetz R. (Upper). 1 inch = 14 miles. 1903.—Borisiak. A., 1.

——. Perm. Tagil. Bissersk. Goroblagodat. Kosvinsky (*various scales*). 1903.—Duparc, L., 2.

——. Poland. Warsaw & Kalisz Railway. 1 inch=20 versts. 1902. Levinski, J., 1.

——. Ural Mts. & northern and southern sea-deposits. $\frac{1}{25,000,000}$. 1903. Bertrand, M., 1.

——. Volhynia. Kovel District terminal moraines. 9 inches = 80 miles. 1902.—Tutkovski, I., 1.

Spain. $\frac{1}{2,000,000}$. 1864.—Maestre, A., 1.

——. Léon. Sabero coalfield. $\frac{1}{20,000}$. 1903.—Mallada, L., 1.

Sweden. Geologiska Undersökning. Ser. Aa. 116. Skara. $\frac{1}{50,000}$. 1903.—Munthe, H., 1.

——. ——. —— 118. Loka. $\frac{1}{50,000}$. 1903.—Blomberg, A., 1.

——. ——. —— 122. Kristinehamn. $\frac{1}{50,000}$. 1903.—Blomberg, A., 2.

——. ——. Ser. Ac. 7. Œland I., Ottenby. $\frac{1}{100,000}$ & $\frac{1}{500,000}$. 1902. — Munthe, H., 2.

——. ——. Ser. C. Distribution of fossil hazels. $\frac{1}{1,000,000}$. 1902. — Andersson, G., 1.

——. Norrbotten. Iron-fields (*various*). 1903. Launay, L. de, 4.

——. ——. Tornea L. $\frac{1}{200,000}$. 1903.—Holmquist, P. J., 1.

——. ——. —— & Sjangeli. 1 inch=10 kilom. 1903.—Holmquist, P. J., 2,

——. Norrland. Angerman Valley. $5\frac{1}{2}$ inches = 125 miles. 1902.—Ahlenius, K., 1.

——. Scania. Sösdala. $\frac{1}{50,000}$. 1903.—Kjellen, R., 3.

Switzerland. Berne. Interlaken district. $\frac{1}{250,000}$. 1903. — Douvillé, H., 10.

——. Grisons. Arosa district. $\frac{1}{60,000}$. 1903.—Hœk, H., 1.

——. Linth & Reuss Glaciers. $\frac{1}{700,000}$. 1903.—Penck, A., 1.

——. Neuchâtel. Areusegorge. $\frac{1}{15,000}$. 1903.—Schardt, H., 5.

Turkey & Servia. Noce Valley (Albania) to New Orsova (Servia). $\frac{1}{500,000}$. 1903.—Vinassa de Regny, P., 2.

Marble, Carrara.—Elsden, J. V., 9.
——, flow of, & pressure.—Rinne, F., 2.
——, Greece, &c.—Bock, J., 1.
——, Ireland.—Elsden, J. V., 6.
——, Tiree, &c.—Coomáraswámy, A. K., 4.
——, Vermont.—Dale, T. N., 1.
——, Washington (U.S.A.).—Shedd, S., 1.
Marburg-a.-d.-Lahn (Nassau).—Walther, K., 1.
Marburg (Styria).—Dreger, J., 2
Marcasite.—Meunier, S., 4.
Marcellus Shale, New York.—Clarke, J. M., 1; Talbot, M., 1; Ohio.—Claypole, E. W., 1.
Marches (Italy).—Mariani, M., 1; Moderni, P., 1.
Marginella.—Cossmann, M., 2.
Marginulina.—Schick, T., 1.
Marine fauna, Boulder-Clay.—Wright, J., 1–3.
Markirch (Alsace-Lorraine).—Bruhns, W., 1.
Marl, Britanny.—Lechartier, G., 1.
——, Hungarian cement.—Koch, A., 2.
—— -lœss, Wabash Valley.—Fuller, M. L., 4.
——, Michigan.—Russell, I. C., 2.
——, nitrogen, &c. in.—Miller, N. H. J., 1.
—— -Slate, Northumberland & Durham.—Lebour, G. A., 1.
——, U. S. Cretaceous.—Parsons, A. L., 1.
Marne (France).—Cooreman, T., 1.
Marodian goldfield (Queensl.).—Ball, L. C., 3.
Marsh Collection, Peabody Museum.—Wortman, J. L., 1.
Marske-by-the-Sea (Yorks.).—Seward, A. C., 1.
Martinique (W.I.).—Anderson, T., 1–5; Colonna, E., 1; Curtis, G. C., 1 & 3; Gautier, A., 1; Gentil, L., 1; Gillot, H., 1; Giraud, C., 1; Giraud, J., 1; Griffiths, A. B., 1; Hœrnes, R., 6; Hovey, C. O., 1, 2, 4, & 5; Kewitsch, G., 1; Lacroix, A., 1–4, 7–9, 12; Lobley, J. L., 1; Meunier, S., 14; Sapper, K., 11; Spencer, J. W.; 2 & 4; Stuebel, A., 2; Supan, A., 1; Verrill, A. E., 3; *see also* Pelé, Mt., &c.
Maruéjols (Gard).—Pellat, E., 1.
Mary R. (Queensl.).—Jackson, C. F. V., 1.
Maryland (U.S.A.).—Clark, W. B., 1–4; Schuchert, C., 4 & 6; White, D., 3.
Maryport (Cumberland).—Arber, E. A. N., 3
Mas-d'Azil, Le (Ariège).—Piette, É., 1.
Maspino (Tuscany).—Bosco, C., 1.
Massachusetts (U.S.A.).—Hobbs, W. H., 6; Mills, F. S., 1; Tarr, R. S., 1; Taylor, F. B., 1.
Mastodon.—Andrews, C. W., 4; Blanckenhorn, M., 1; Dawkins, W. B., 1 Lydekker, R., 4; Schottler, W., 1; Venukov, P. I., 1.
Matabeleland (S. Africa).—Carey, G. R., 1.
Matatiele (Cape Colony).—Schwarz, E. H. L., 1.
Matheria.—Whiteaves, J. E., 1.
Matru, Mersa (Egypt).—Ball, J., 2; Pachundaki, D. E., 1.
Matyoscor.—Ameghino, F., 2.
Maurienne, Hte. (Savoy).—Girardin, P., 1.
May-sur-Orne (Calvados).—Shrubsole, O. A., 1.
Mazama, Mt. (Or.).—Diller, J. S., 3.
Mediterranean, French shore-lines.—Depéret, C., 2.
Medlicottia.—Smith, J. P., 1.
Mëdobori massif (Bessarabia).—Michalski, A., 1.
Medusæ, Devonian.—Kinkelin, F., 3.
Meekoceras.—Airaghi, C., 1.
Megablattina.—Sellards, E. H., 1.
Megaladapis.—Lorenz, L. von, 1.
Megalohyrax.—Andrews, C. W., 3.
Megalosaurus.—Nopčsa, F. von, Jun., 2.
Megalotriton.—Stefano, G. de, 1.
Megalurus.—Sauvage, H. E., 2.
Megambonia.—Weller, S., 2.
Meina (Piedmont).—Taramelli, T.
Meiningen (Germany).—Wuest, E., 5.
Melania.—Pavlov, P. S., 2.
—— -limestone, Alsace-Lorraine.—Andreæ, A., 1.
Melanite.—Colomba, L., 2; Franchi, S., 3; Moldenhauer, F., 1.
Melanopsis.—Fœrster, B., 5; Hudleston, W. H., 1; Pavlov, P. S., 2.
Melanosporites.—Pampaloni, L., 1.
Melanterite.—Schaller, W. T., 1.
Melaphyre, Bohemia.—Hinterlechner, K., 1.
—— 'contraction-cylinder.'—Klemm, G., 1.
——, Cornon.—Ippen, J. A., 2.
——, Hesse.—Chelius, C., 1; Kueppers, E., 1.
——, Styria.—Fabian, K., 1.
——, Venetia.—Keyserling, H. von, 1.
Melbourne (Vict.).—Chapman, F., 1 & 2.
Melongena.—Cossmann, M., 2.
Memleben-a.-d.-Unstrut (Thuringia).—Wuest, E., 1.
Mendelgebirge (Tyrol).—Blaas, J., 1.
Mendoza (Argentina).—Bodenbender, G., 1, 2.
Menin (Flanders).—Stainier, X., 4.
Mentone (Alpes-Maritimes).—Gaudry A., 1; Richardson, R., 1.
Mentor Beds, Kansas.—Jones, A. W., 1.
Mercure R. (Basilicata).—Lorenzo, G. de, 2.
Mercury. *See* Quicksilver.
Meris Valley (Piedmont).—Roccati, A., 1.
Merseburg (Germany).—Schuetze, F., 1.

Mersey R.—Nares, Sir G. S., 1.
Merstham (Surrey).—Holmes, W. M., 1.
Mesabi (Minn.).—Leith, C. K., 1.
Mesalia.—Bistram, A. von, 1.
Mesorhytis.—Cossmann, M., 1.
Mesosaurus.—Vaillant, L., 1.
Messina (Sicily).—Seguenza, L., 1–3.
Metacheiromys.—Wortman, J. L., 1.
Metalliferous deposits, origin of.—Launay, L. de, 1.
Metamorphic rocks, Ireland.—Cole, G. A. J., 1; Liguria.—Franchi, S., 1; Thuringia.—Zimmermann, E., 1; Victoria (Austral.).—Gregory, J. W., 2.
Metamorphism, Alpine graphite-deposits &.—Weinschenk, E., 7.
——, contact-.—Kemp, J. F., 2; Lindgren, W., 2.
——, Dunderland iron-deposits.—Vogt, J. H. L., 2.
——, dynamic.—Seymour, H. J., 2.
——, hydrothermal.—Hunt, A. R., 7.
——, Loch-Lomond District.—Cunningham-Craig, E. H., 1.
——, regional.—Hornung, F., 1.
——, rock-.—McMahon, C. A., 1 & 3.
——. *See also* Contact.
Metaplasia.—Weller, S., 2.
Meteoric dust, New South Wales.—Liversidge, A., 1.
—— iron.—Cohen, E., 1.
Meteorites, Alabama.—Merrill, G. P., 1.
——, Autrim.—Gurney, H. P., 1.
——, Berlin Univ. Mus.—Klein, C., 2.
——, Colorado.—Preston, H. L., 1.
——, Finland.—Borgstrœm, L. H., 1.
——, free phosphorus in.—Farrington, O. C., 1.
——, Kansas.—Merrill, G. P., 2.
——, Kentucky.—Merrill, G. P., 4; Miller, A. M., 1; Ward, H. A., 4.
——, Maine.—Ward, H. A., 5.
——, Mexico.—Tassin, W., 1; Ward, H. A., 2.
——, Michigan.—Preston, H. L., 2.
——, Minnesota & Pennsylvania.—Ward, H. A., 3.
——, Missouri.—Ward, H. A., 1.
——, Nebraska.—Barbour, E. H., 1.
——, New South Wales.—Card, G. W., 1; Liversidge, A., 2.
——, occurrence of.—Cohen, E., 3 & 4.
——, Sudan.—Cohen, E., 2.
——, Upsala Min. Inst.—Hœgbom, A. G., 1.
——, Vienna Nat. Hist. Mus.—Berwerth, F., 2.
——, Virginia.—Campbell, H. D., 1.
——. *See also* Iron, meteoric.
Metopotoxus.—Scott, W. B., 1.
Metoptoma.—Matthew, G. F., 1.
Metula.—Casey, T. L., 1.
Meudon (Seine-et-Oise).—Ramond, G., 1.
Meuse R. (France).—Bois, P., 1.
Mexico.—Aguilera, J. G., 1; Bœse, E., 1; Caballero, G. de J., 1; Collins, H. F., 1; Felix, J., 5; Halse, E., 1 & 2; Hill, R. T., 1; Keyes, C. R., 5; Kunz, G. F., 2; Lakes, A., 7 & 8; Ludlow, E., 1; Malcomson, J. W., 1; Manzano, J. P., 1; Ordóñez, E., 1–3; Rangel, M. F., 1; Richards, E. H., 1; Villarello, J. de D., 1; Weed, W. H., 2 & 3; White, W., Jun., 1; Witherbee, T. F., 1.
Miadesmia.—Benson, M., 1.
Mica, ancient use of.—Miers, H. A., 3.
——, Brazil.—Scott, H. K., 1.
——, Canada.—Osann, A., 1; Pratt, J. H., 6.
——, India.—Holland, T. H., 1; Primrose, A., 1; Wetherell, E. W., 1.
——, Striegau.—Sachs, A., 1.
——, United States.—Pratt, J. H., 6.
——. *See also* Muscovite, &c.
Mica-schists, plant-remains in.—Dal Piaz, G., 1 & 2.
Michigan (U.S.A.).—Jackson, J. F., 1; Lane, A. C., 2; Russell, I. C., 2.
Michipicoten Bay (Ont.).—Coleman, A. P., 1 & 4.
Micraster.—Airaghi, C., 2; Rowe, A. W., 1.
Microclines, green, pleochroism of.—Rinne, F., 1.
Microdiscus.—Etheridge, R., Fil., 1; Weller, S., 2.
Microdon.—Sauvage, H. E., 2.
Microdrilla.—Casey, T. L., 1.
Micromelania.—Pavlov, P. S., 2.
Microscope-sections, scratched minerals.—Jevons, H. S., 1.
Microsyops.—Wortman, J. L., 1.
Microthyrites.—Pampaloni, L., 1.
Middlesex.—Brown, J. A., 1.
Midlands (England).—Shrubsole, O. A., 1.
Midlothian (Scotland).—Cadell, H. M., 2; *see also* Edinburgh, &c.
Mignano (Campania).—Sabatini, V., 1.
Milleporidium.—Steinmann, G., 4.
Milleroceros.—Smith, J. P., 1.
Millstone Grit, Grassington Moor.—Dakyns, J. R., 2.
Mimetite.—Bowman, H. L., 1.
Minden (Westphalia).—Wiese, T., 1.
Mine-flooding, Cuesmes.—Kersten, J., 1.
Mineral crystallization, granite.—Hunt, A. R., 4.
—— industry, progress of, Tasmania.—Twelvetrees, W. H., 1.
—— ——, subject-list of works on.—Dalton, C. N., 1.
—— intercrystallization.—Delkeskamp, R., 1; Muegge, O., 1.
—— resources, England, United States, &c.; *see* Antimony, Iron, &c.
—— veins, finding by electricity.—Dickinson, J., 1.
—— water, arsenic in.—Gautier, A., 2.
—— waters, Ems.—Fresenius, H., 1; France.—Garrigou, F., 1; Moissan, H., 1; Moureu, C., 1; Indiana.—Blatchley, W. S., 1; Hessler, R., 1;

Madagascar. — Arnaud, A., 1; Rumania.—Nicolau, T., 1; United States. — Day, D. T., 1; Yenisei Gov. — Ludwig, F., 1.
Mineralogical Institute, Upsala.—Hœgbom, A. G., 1; *see also* Museums, &c.
—— projection, lantern.—Brauns, R., 2.
—— textbooks.—Mercalli, G., 1; Miers, H. A., 1.
Mineralogy, 1901.—Morley, H. F., 1.
——, American (N.).—Weeks, F. B., 2.
——, applied.—Charpentier, A., 1.
——, Scottish.—Heddle, M. F., 1.
Minerals, artificial production of. — Kœnig, G. A., 1; Thugutt, St. I., 1; Wright, F. E., 1.
——, Binn Valley.—Baumhauer, H., 2; Lewis, W. J., 1; Solly, R. H., 1 & 2.
——, Canada.—Hoffmann, G. C., 1.
——, contact-.—Fromme, J., 1.
——, etching of.—Fuller, M. L., 2.
——, Ireland.—Seymour, H. J., 1 & 3.
——, Madagascar.—Lacroix, A., 11.
——, melting-point of.—Dœlter, C., 2; Lenarčič, J., 1 & 2.
——, molecular volume and chemical composition of crystallographically similar.—Prior, G. T., 1.
——, Newfoundland.—Howley, J. P., 1.
——, new names of.—Spencer, L. J., 2.
——, New South Wales.—Card, G. W., 1.
——, on old buried coins. — Rogers, A. F., 2.
——, orientation of.—Souza-Brandão, V. de, 1.
——, place-names &.—Foster, Sir C. Le N., 3.
——, rock-forming.—Joly, J., 5.
——, Scotland.—Heddle, M. F., 1.
——, specific gravity of.—Behr, J., 1.
——, Tasmania.—Pettard, W. F., 1.
Mines, Great Britain.—Atkinson, J. B., 1; &c.—Foster, Sir C. Le N., 1 & 2.
——. India.—Stonier, G. A., 1 & 2.
——, Indiana.—Epperson, J., 1.
——, Nova Scotia.—Gilpin, E., Jun., 2.
——, Peru. — Balta, J., 1; Larrabure, E., 1.
——, Transvaal.—Weldon, H., 1 & 2.
Minette.—Linck, G., 1.
Mineville (N.Y.).—Reiss, H., 1.
Mining engineering.—Charlton, A. G., 1.
——, geology and.—Lapworth, C., 2.
——, progress of civilization &.—Blake, W. P., 4.
—— terms, Spanish-American.—Dwight, A. S., 1.
Minnesota (U.S.A.). — Hall, C. W., 1; Leith, C. K., 1; Winchell, N. H., 2.
Mino-Owari (Japan).—Omori, F., 1.
Minsterworth (Gloucester). — Richardson, L., 5.
Minussinsk (Siberia).—Bordeaux, A., 1.
Miocene, Galicia.—Friedberg, G., 1.
——, Loire Basin.—Dollfus, G. F., 6.
——, Seine-et-Oise.—Grossouvre, A. de, 1.
Miocene, Switzerland.—Rollier, L., 3; Stehlin, H. G., 1.
——. *See also* Tertiary.
Miquelon I. (Newfoundland). — Breton, — Le, 1.
Misburg (Hanover).—Wollemann, A., 3.
Mispickel.—Buecking, H., 1; Kerforne, F., 2.
Mission Range (Mont.).—Elrod, M. J., 1.
Mississippi (U.S.A.). — Dall, W. H., 2; Eastman, C. R., 1; Hilgard, E. W., 1; Keyes, C. R., 2; Smith, E. A., 2.
Missouri (U.S.A.).—Bain, H. F., 1 & 2; Eldridge, G. H., 1; Hedburg, E., 1; Keyes, C. R., 1.
'Mistpoeffers.'—Alippi, T., 1; Botti, U., 1.
Mitchell River (Gippsland). — Dennant, J., 2.
Mitta Mitta (Victoria).—Jenkins, H. C., 1.
Mittelgebirge (Bohemia).—Becke, F., 1; Cornu, F., 1.
Mius R. (S. Russia).—Sokolov, N., 1.
Mixodectidæ.—Osborn, H. F., 3.
Mochlodon.—Nopčsa, F. von, Jun., 1.
Modiola. — Etheridge, R., Fil., 2; Maurer, F., 1; Shattuck, G. B., 1.
Modiolopsis.—Weller, S., 2.
Modiomorphica.—Maurer, F., 1.
Mœritherium.—Lydekker, R., 4.
Moffat Ry. (Colo.).—Lakes, A., 15.
Mohave Desert (Cal.). — Campbell, M. R., 1.
Mojada, Sierra (Mexico).—Malcolmson, J. W., 1.
Molasse, Swiss Tertiary.—Renevier, E., 2; Stehlin, H. G., 1.
Moldavia (Rumania). — Butureanŭ, V. C., 1; Simionescŭ, J. T., 1–3.
Mollusca, Colorado - Desert fossil. — Stearns, R. E. C., 1.
——, erosion by.—Lakes, A., 12.
Molokai I. (Hawaii).—Lindgren, W., 4.
Molybdenum.—Pratt, J. H., 3.
Monachus.—Ugolini, R., 1–3.
Monazite.—Day, D. T., 1; Hussak, E., 2; Mingaye, J. C. H., 2; Pettard, W. F., 1; Pratt, J. H., 11.
—— sand.—Barker, G. F., 1.
Mondovi (Piedmont).—Sacco, F., 1.
Monetite.—Schulten, A. de, 1.
Mongolia (Asia).—Lyman, B. S., 2.
Monilites.—Pampaloni, L., 1.
Monkeys, Quaternary. — Abel, O., 2; Lorenz, L. von, 1.
——, Tertiary. — Osborn, H. F., 3; Schlosser, M., 1; Wortman, J. L., 1.
Monmouthshire. — Dakyns, J. R., 3; Moore, H. C., 1; Richardson, L., 2; Strahan, A., 4; Vaughan, A., 1.
Monoclonius.—Osborn, H. F., 4.
Monograptus.—Hall, T. S., 2.
Monophyllites.—Schellwien, E., 1.
Monopleura.—Franchis, F. de, 1.
Monotrypa.—Papp, C., 1; Weller, S., 2.
Mons (Gard).—Pellat, E., 1.
—— (Hainault).—Leriche, M., 2.

Montana (U.S.A.). — Elrod, M. J., 1; Hatcher, J. B., 1; Rowe, J. P., 1 & 2; Stanton, T. W., 2; Stobbs, L. S., 1; Weed, W. H., 1 & 7; Willis, B., 1.
Montanite.—Mingaye, J. C. H., 1.
Monte Cristo, Mt. (Wash.). — Spurr, J. E., 1.
Montenegro. — Antula, J., ; Manasse, E., 1; Martelli, A., 2; Vinassa de Regny, P., 1; Zujovič, J. M., 1.
Monteregian Hills (Quebec). — Adams, F. D., 3.
Monterey (Mex.).—White, W., Jun., 1.
Montian.—Cornet, J., 4; Grossouvre, A. de, 3; Rutot, A., 2; *see also* Cretaceous.
Montlivaltia.—Felix, J., 2; Osasco, E., 1.
Montmaurin (Haute-Garonne).—Boule, M., 1; Chartron, C., 1.
Montorfano (Piedmont).—Tacconi, E., 1.
Montpelier Hill (Co. Dublin).—Wright, W. B., 1.
Montreal (Ottawa).—Adams, F. D., 3; Evans, N. N.
Montroydite.—Moses, A. J., 1.
Montserrat (W. I.).—Sapper, K., 6.
Monzie (Perth).—Kerr, —. —, 1.
Monzoni (Tyrol).—Gordon, M. M. O., 1; Ippen, J. A., 3, 4, 7; Melczer, G., 1; Romberg, J., 2.
Monzonite, Tyrol. — Ippen, J. A., 1; Romberg, J.
Moon, earth &.—Borredon, G., 2 & 5.
Moraines, Alsace-Lorraine.—Van Werveke, L., 14.
——, Bavaria.—Regelmann, C., 1.
——, Denmark.—Ussing, N. V., 1.
——, Inn Valley.—Hess, H., 1.
——, Kingston (N.Z.).—Marshall, P., 1.
——, New York State.—Comstock, F. M., 2.
——, origin of.—Crosby, W. O., 1.
——, Scania.—Holst, N. O., .
——, Volhynia.—Tutkovski, I., 1.
——. *See also* Eskers, &c.
Moravia.—Bock, H., 1; Felix, J., 1; Fuchs, T., 4; Kretschmer, F., 1; Kříz, M., 1; Tietze, E., 1; Vetters, H., 1.
Moravicza (Hungary). — Weinschenk, E., 3.
Moray Firth (Scotland).—Mackie, W., 3 & 6.
Moreton-in-the Marsh (Gloucester). — Reade, T. M., 3.
Moro, El (Colo.).—Hill, R. T., 1.
Morocco (Africa).—Fischer, T., 1.
Morphippus.—Ameghino, F., 4.
Morse, E. S. *See* Schuchert, C., 1.
Morter I. (Dalmatia).—Schubert, R. J., 1.
Mosasaurs, origin of.—Nopčsa, F. von, Jun., 8.
Moselle R. (Alsace-Lorraine). — Van Werveke, L., 2.
Mosor (Dalmatia).—Kerner, F. von, 5.
Mossel Bay (Cape Colony).—Rogers, A. W., 2.
Moulineaux (Seine-Infre.).—Fortin, R., 1.
Mountain-chains, circular form of. — Lake, P., 1.
Mountains, direction of.—Issel, A., 4.
——, Great-Basin Region (Nevada, &c.). —Davis, W. M., 4.
——, Norrbotten.—Holmquist, P. J., 1.
——, Norway.—Reusch, H., 1 & 2.
——, origin of. — Avebury, Lord, 1; Fleischer, A., 1; Reade, T. M., 2.
——. *See also* Orography.
Mouretia.—Douvillé, H., 7.
Mourne Mts. (Co. Down).—Seymour, H. J., 3.
Mouthe, La, Cave (Dordogne). — Moissan, H., 2; Rivière, E., 1.
Mozambique (E. Africa).—Choffat, P., 2.
Mücke (Hesse).—Klemm, G., 2.
Muckross Head (Donegal).—Woodward, H., 8.
Mud-volcanoes, California, India, &c.— Lakes, A., 13.
Mudstones, Eodevonian.—Ami, H. M., 3.
Muensteroceras.—Smith, J. P., 1.
Müglitz (Moravia).—Kretschmer, F., 1.
Mugnone R. (Tuscany).—Dainelli, G., 1.
Mühlhausen (Alsace-Lorraine). — Fœrster, B., 1 & 5.
Münchberg (Bavaria).—Duell, E., 1.
Munich (Bavaria).—Pfaff, F. W., 2.
Munier-Chalmas, —. *See Obit.*, Gaudry, A., 3.
Muotta Valley (Schwytz).—Otter, J.
Murchison Goldfield (W. Austral.).— Campbell, W. D., 1.
Murchisonia.—Walther, K., 1.
Murex.—Cossmann, M., 2.
Muschelkalk. *See* Trias.
Muscovite.—Ivanov, L. L., 1.
Müsen (Westphalia).—Bruecher, M., 1.
Museum, American, of Natural History, New York.—Hovey, E. O., 2.
——, Basel, Nat. Hist.—Greppin, E., 1.
——, Berlin University.—Klein, C., 2.
——, Bohemian Nat. Hist. — Fritsch, A., 1.
——, British (Nat. Hist.).—Prior, G. T., 3.
——, Caen Nat. Hist.—Bigot, A., 7.
——, Carnegie.—Hatcher, J. B., 3.
——, Frankfort-on-Main Nat. Hist. Soc. —Kinkelin, F., 2.
——, Geol. Soc. type-specimens. — Blake, J. F., 1.
——, Gosselet, Inst. des Sci. nat. Lille. —Gosselet, J., 7.
——, Horniman.—Salter, A. E., 2.
——, Hull.—Sheppard, T., 3.
——, Hungarian Geol. Inst. — Pethœ, J., 1.
——, Lausanne Nat. Hist.—Renevier, E., 1.
——, Leicester.—Biggs, J. T., 1.
——, Olten.—Stingelin, T., 1.
——, Oxford University.—Healey, M., 1.
——, Paris Nat. Hist.—Meunier, S., 5.
——, Peabody, Yale.—Eaton, G. F., 1 & 2; Marsh Collection.—Wortman, J. L., 1.

Museum of Practical Geology.—Teall, J. J. H., 3 & 4.
——, St. Petersburg Zool.—Woodward, A. S., 9.
——, SEDGWICK, Cambridge.—Reed, F. R. C., 4; *see also* WOODWARDIAN.
——, U.S. National.—Schuchert, C., 2.
——, Upsala University.—Hœgbom, A. G., 1.
——, Victorian National, Melbourne.—Chapman, F., 1.
——, Vienna Nat. Hist.—Berwerth, F., 2.
——, WOODWARDIAN.—Kurtz, F., 1; Reed, F. R. C., 1, 2, 4; *see also* SEDGWICK.
Myalina.—Kayser, E., 1; Maurer, F., 1; Whitfield, R. P., 1.
Mycethoseris.—Osasco, E., 1.
Mylagauli, Tertiary.—Matthew, W. D., 4.
Mylagaulodon.—Sinclair, W. J., 1.
Mylodon.—Cordovez, M., 1.
Myoconcha.—Burckhardt, C., 1.
Myophoria.—Maurer, F., 1; Walther, K., 1.
Myrica.—Engelhardt, H., 1; Knowlton, F. H., 1.
Mysidioptera.—Bittner, A., 1.
Mysore (India).—Jayaram, B., 1; Primrose, A., 1; Sambasiva Iyer, V. S., 1 & 2; Slater, H. K., 1; Smeeth, W. F., 1; Wetherell, E. W., 1–4.
Mytilarca.—Weller, S., 2.
Mytilus.—Etheridge, R., Fil., 2.

Nagelfluh, Salzburg.—Crammer, H., 1.
Nagy-Károly (Hungary).—Pethœ, J., 2.
Nagy-Surány (Hungary).—Horusitzky, H., 1.
Names of places, minerals &.—Foster, Sir C. Le N., 3.
Namur (Belgium).—Destinez, P., 1; Simoëns, G., 1; Van den Broeck, E., 15.
Nannites.—Airaghi, C., 1.
Naples, Bay of (Italy).—Guenther, R. T., 1; Lorenzo, G. de, 1.
Narni (Umbria).—Lotti, B., 1.
Nassa.—Cossmann, M., 2.
Nassau (Germany).—Bellinger, J., 1; Hintz, E., 1; Kaiser, E., 1; Maurer, F., 1; *see also* Cassel & Hesse.
Natal (S. Africa).—Gray, C. W., 1.
Nathorstella.—Kayser, E., 1.
Natica.—Dacqué, E., 1.
Natrolite.—Pettard, W. F., 1.
Natron, Wadi (Lr. Egypt).—Stromer, E. von, 5.
Naumburg (Cassel).—Henkel, L., 1.
Nautilus.—Airaghi, C., 1; Franz, V., 1; Hœrnes, R., 5; Shattuck, G. B., 1.
——, evolution of.—Hœrnes, R., 4.
Navicula.—Renault, B., 4.
Neamtz (Rumania).—Nicolau, T., 1.
Nebraska (U.S.A.).—Adams, G. I., 1; Barbour, E. H., 1; Matthew, W. D., 6.
Necklace, prehistoric.—Rahir, E., 2.
Neithea.—Woods, H., 1.
Nemagraptus.—Elles, G. L., 1.
Nemertites.—Walther, J., 1.
Neocomian, Fribourg (Switzerland).—Sarasin, C., 2.
——, Galicia.—Volz, W., 1.
——, Germany.—Kœnen, A. von, 1.
——, Montenegro.—Antula, J., 1.
——, Provence.—Pellat, E., 1.
——, Rumania.—Sevastos, R., 2.
——, Westphalia.—Stille, H., 2.
——. *See also* Cretaceous.
Neoicoceras.—Smith, J. P., 1.
Neopithecus.—Schlosser, M., 1.
Nepheline-ægirine-pegmatite, Sutherland.—Goodchild, J. G., 11.
—— -basalts, N.S.W.—Card, G. W., 2.
—— rocks, Galicia.—Thugutt, St. I., 1.
—— ——, Greece, &c.—Hilber, V., 2.
—— ——, Italy.—Franchi, S., 2; Novarese, V., 2; Stella, A., 1.
—— ——, Ontario.—Miller, W. G., 1.
—— ——, Quebec.—Adams, F. D., 3.
—— ——, Tasmania.—Twelvetrees, W. H., 12.
—— ——, Tyrol.—Ippen, J. A., 1–7.
Nephrite stone-implements.—Wolff, F. von, 2.
Nerchinsk (Siberia).—Bordeaux, A., 1.
Neridomus.—Moore, J. E. S., 1.
Nerinœa.—Dacqué, E., 1.
Nerinella.—Chartron, C., 1.
Neritina.—Chartron, C., 1; Fœrster, B., 5.
Neritodonta.—Pavlov, P. S., 2.
Neritopsis.—Bistram, A. von, 1; Chartron, C., 1.
Nerone, Mte. (Marches, Italy).—Alippi, T., 1.
Nettlebank (Staffs.).—Newton, E. T., 1.
Neuchâtel (Switzerland).—Schardt, H., 1 & 5.
Neuenahr (Nassau).—Hintz, E., 1.
Neuenheerse (Westphalia).—Stille, H., 2.
Neundorf (Hanover).—Stille, H., 1.
Neumayria.—Burckhardt, C., 1.
Neurankylus.—Osborn, H. F., 4.
Neuropteris.—Zeiller, R., 1.
Neustadt (Baden).—Schalch, F., 2.
Neustosaurus.—Nopčsa, F. von, Jun., 6.
Neutra (Hungary).—Horusitzky, H., 2.
Neuweilnau (Nassau).—Maurer, F., 1.
Nevada (U.S.A.).—Davis, W. M., 4; Maguire, —, 1.
Nevada, Sierra (Cal.).—Turner, H. W., 1.
Nevado de Toluca (Mexico).—Ordóñez, E., 1.
Nevis I. (W.I.).—Sapper, K., 7.
Newark Formation, Atlantic border.—Hobbs, W. H., 4 & 6.
Newberyite.—Schulten, A. de, 3.
New Caledonia.—Piroutet, M., 1.
Newcastle (N.S.W.).—Atkinson, A. A., 1.

New England Plateau (N.S.W.). — Andrews, E. C., 1.
New England (U.S.A.).—Hobbs, W. H., 6.
Newfoundland.—Daly, R. A., 1; Howley, J. P., 1.
New Guinea.—Pinder, C. R., 1.
New Hampshire (U.S.A.).—Perry, J. H., 1.
New Jersey (U.S.A.).—Hobbs, W. H., 4 & 6; Kuemmel, W. H., 1 & 2; Parsons, A. L., 1; Weed, W. H., 6; Weller, S., 2.
New Mexico (U.S.A.).—Johnson, D. W., 1; Keyes, C. R., 4 & 5; Lerchen, F. H., 1; Reagan, A. B., 1 & 2; Springer, A., 1; Stobbs, L. S., 1.
Newport (Mon.).—Strahan, A., 4.
Newquay (Cornwall).—Kennard, A. S., 1.
New South Wales.—Andrews, E. C., 1 & 2; Atkinson, A. A., 1; Card, G. W., 1–3; Carne, J. E., 1; Coghlan, T. A., 1; David, T. W. E., 1; Deane, H., 1; Etheridge, R., Fil., 3 & 4; Hall, T. S., 2; Kurtz, F., 1; Mingaye, J. C. H., 3; Pittman, E. F., 1.
New York State (U.S.A.).—Clarke, J. M., 1; Cleland, H. F., 1; Comstock, F. M., 2; Dale, T. N., 1; Hobbs, W. H., 4 & 6; Prosser, C. S., 1; Schuchert, C., 3; Smallwood, W. M., 1; Talbot, M., 1; Whitfield, R. P., 4.
New Zealand. — Benham, W. B., 1; Coghlan, T. A., 1; Hamilton, A., 1; Hogben, G., 1; McKay, A., 1; Marshall, P., 1; Morgan, P. C., 1; Park, J., 1; *see also* Earthquakes, &c.
Niagara Formation, Indiana.—Kindle, E. M., 1.
—— Limestone, Ohio. — Claypole, E. W., 1.
—— shale, N. Y.—Whitfield, R. P., 4.
Nice (Alpes-Maritimes).—Riaz, A. de, 2.
NICHOLSON, H. A., memorial. *See* Woodward, H., 9.
Nickel-ore, Saxony.—Beck, R., 1.
—— ——, Silesia.—Illner, —, 1.
—— ——, Sudbury.—Dickson, C. W., 1.
—— ——, Sweden.—Lœfstrand, G., 1.
—— ——, United States.—Day, D. T., 1; Pratt, J. H., 2.
Nicolaus I. (Sea of Aral).—Samoïlov, J., 1.
Nicolet, Glacial Lake (Wisc.).—Upham, W., 3.
Nictaux (N. S.).—Weatherbe, D'A., 1.
Niedenkirchen (Lr. Bavaria).—Stromer, E. von, 3.
Niedertiefenbach (Nassau).— Bellinger, J., 1.
Nieuwenhoven Château (Liége). — Stainier, X., 1.
Nieuwenkerken (Liége).—Stainier, X., 1.
Nile Valley (Egypt).—Ball, J., 1; Beadnell, H. J. L., 1; Cadell, H. M., 3.
Nilssonia.—Mœller, H., 1; Seward, A. C., 2.
Niort (Poitiers).—Michel-Lévy, A., 1; Welsch, J., 1.
Nipa & *Nipadites*.—Seward, A. C., 5.
Nitrates, Algeria.—Flamand, G. B. M., 1.
Nitrogen, soils &.—Miller, N. H. J., 1.
Nittur (Mysore).—Wetherell, E. W., 2.
Niue I. (Pacific).—Skeats, E. W., 1.
Nivernais (France).—Lamothe, R. de, 1.
Noce R. (Basilicata).—Lorenzo, G. de, 2.
Noce Valley (Albania).— Vinassa de Regny, P., 2.
Nodosaria.—Liebus, A., 2; Schick, T., 1.
Nodule - bearing schists, Colorado. — Read, T. T., 1.
Nograd (Hungary).—Koch, A., 4.
Nord (France).—Dollé, L., 1; Fèvre, —, 1; Gosselet, J., 1–6; Lagaisse, —, 1; Lebrun, —, 1; Leriche, M., 1; Vaillant, V., 1.
Nordeck (Hesse).—Schottler, W., 1.
NORDENSKJŒLD, A. E. *See Obit.*, Hamberg, A., 1.
Nördlingen (Bavaria).—Branco, W., 1 & 2; Knebel, W. von, 1 & 2.
Norfolk.—Elsden, J. V., 5; Monckton, H. W., 5.
Normandy (France).—Bigot, A., 1–7; Shrubsole, O. A., 1.
Norrberg (Westmanland).—Launay, L. de, 4.
Norrbotten (Sweden).—Holmquist, P. J., 1 & 2; Osborn, C. S., 1; Tœrnebohm, A. E., 1.
Norrland (Sweden).—Ahlenius, K., 1.
North Sea.—Harbœ, E., 1.
Northamptonshire.—Freckelton, T. W., 1; Thompson, B., 1–3.
Northumberland.—Forster, T. E., 1; Goodchild, J. G., 2; I'Anson, J. C., 1; Lebour, G. A., 1.
Norway.—Monckton, H. W., 3 & 5; Rekstad, J., 1; Reusch, H., 1 & 2; Sernander, R., 2; Tœrnebohm, A. E., 2; Vogt, J. H. L., 2; *see also* Scandinavia.
Norwegian Polar Expedition, 'Fram.' —Anon., 29; Bonney, T. G., 8; Schei, P., 1; Sverdrup, O., 1.
Notidanus.—Koch, A., 4; Leriche, M., 1.
Notohippus & *Notopithecus*. — Ameghino, F., 4.
Nova Scotia (Canada).—Ami, H. M., 2–4; Ells, R. W., 1; Faribault, E. R., 1; Fletcher, H., 1; Gilpin, E., Jun., 1 & 2; Haycock, E., 1 & 2; Mackinlay, A., 1; Poole, H. S., 2; Weatherbe, D'A., 1.
Novigrad (Dalmatia).—Schubert, R. J., 2.
Novorossiisk (S. Russia).—Nikitin, S., 1.
Noyarey (Dauphiné).—Kilian, W., 2.
Noyes Mt. (Canada).—Woodward, H., 7.
Nubecularia.—Steinmann, G., 3.
Nucula. — Etheridge, R., Fil., 2; Walther, K., 1.

Nuculana.—Maurer, F., 1.
Nuculina.—Bistram, A. von, 1.
Nummulites.—Douvillé, H., 1 & 9; Martelli, A., 1; Prever, P., 1.
—— *contortus*-beds.—Haug, E., 2.
Nürnberg (Bavaria).—Spiess, E., 1.
Nürschau (Bohemia).—Jækel, O., 3.
Nyasa (Equatorial Africa).—Henderson, J., 2.
Nyctipithecus.—Wortman, J. L., 1.

Obernzeil (Bavaria).—Launay, L. de, 3.
Obliquipecten—Hind, W., 4.
Obolella.—Walcott, C. D., 3.
Obolus.—Matthew, G. F., 1; Walcott, C. D., 3 & 4; *Obolus*-sandstone, Gotland.—Wiman, C., 2.
Ocean I. (Pacific).—Reed, F. R. C., 3.
—— basins, origin of.—Chamberlin, T. C., 1; Mackie, W., 2; Reade, T. M., 2.
Oceanic deposits.—Blake, J. F., 2; Lohmann, H., 1; Lomas, J., 4.; Verrill, A. E., 2 & 3; Wethered, E. B., 1.
—— salts.—Van't Hoff, J. H., 1–5.
—— water, density of.—Arçtowski, H., 4; Thoulet, J., 1.
Ochetoceras.—Loriol, P. de, 1.
Ocoee Slates, Alabama.—Smith, E. A., 1.
Oculina.—Felix, J., 2.
Odensjön (W. Gotland).—Kjellén, R., 2.
Odontaspis.—Leriche, M., 1.
Odontoceti.—Abel, O., 1.
Odontomysops.—Ameghino, F., 5.
Œblarn (U. Styria).—Redlich, K. A., 1.
Œland I. (Sweden).—Munthe, H., 2.
Œtz Valley (Tyrol).—Hezner, L., 1.
Offenbánya (Transylvania).—Gesell, A., 1; Pálfy, M. von, 1.
Ofotenfjord (Norway).—Vogt, J. H. L., 2.
Ohio (U.S.A).—Bownocker, J. A., 1 & 2; Claypole, E. W., 1; Griswold, W. T., 1; Nickles, J. M., 1; Prosser, C. S., 2; White, D., 3.
Oisans (Savoy).—Girardin, P., 1.
Olchon I. (Lake Baikal).—Bagashov, I., 1.
Olcostephanus.—Bogoslovski, N. A., 1; Weller, S., 1.
Oldhaven Beds, Ipswich.—Bassett, H., Jun., 1.
Old Red Sandstone, Aberdeen.—Milne, Dr. J., 1.
—— ——, Edinburgh.—Goodchild, J. G., 10.
—— —— erratic, Huntsham.—Wood, J. G., 1.
—— ——, Forfar & Perth.—Thomson, A. G. M., 1.
—— ——, Moray Firth.—Mackie, W., 6.
—— ——, Shropshire, &c.—Moore, H. C., 1.
Olenellus.—Weller, S., 2.
Olenoides.—Woodward, H., 7.
Oligocene, Switzerland.—Stehlin, H. G., 1.
Oligoclase.—Lawson, A. C., 2; Tertsch, H., 1.
Oliva.—Cossmann, M., 2.
Olivella.—Casey, T. L., 1.
Olivine-basalt, New South Wales.—Mingaye, J. C. H., 3.
Olten (Solothurn).—Stingelin, T., 1.
Omphaloptycha.—Bistram, A. von, 1.
Onaga (Kan.).—Crevecœur, F. F., 1.
Onondaga L. (N.Y.).—Smallwood, W. M., 1.
Ontario (Canada).—Ami, H. M., 1 & 8; Coleman, A. P., 1 & 4; Ells, R. W., 2 & 3; Graton, L. C., 1; Ingall, E. D., 1; Miller, W. G., 1; Shimer, H. W., 1.
Onyx-marble.—Bodenbender, G., 2.
Oolite, Bavaria.—Schmierer, T., 1.
——, Cotteswold Hills.—Richardson, L., 4.
——, formation of.—Linck, G., 5; Raisin, C. A., 1; Wethered, E. B., 1.
——, Northants.—Thompson, B., 1–3.
Oolitic concretions.—Erdmann, E., 1.
—— iron-ore, Lorraine.—Van Werveke, L., 15; Westphalia.—Wiese, T., 1.
—— limestone, Ashbourne & Buxton Ry.—Arnold-Bemrose, H. H., 1.
Ooze, Britanny shore.—Lechartier, G., 1.
——, Iowa Carboniferous.—Udden, J. A., 2.
Opal, Dillenburg.—Lœcke, —, 1.
——, origin of.—Meunier, S., 7.
——, Queensland.—Jackson, C. F. V., 2.
Ophiceras.—Schellwien, E., 1.
Ophisaurus.—Gerhardt, K., 1.
Ophthalmidium.—Schick, T., 1.
Opissaster.—Gauthier, V., 1.
Oppelia.—Sarasin, C., 2.
Oppeln (Silesia).—Michael, R., 2.
Oppites.—Pampaloni, L., 1.
Oran (Algeria).—Ficheur, E., 1; Haug, E., 2.
Orange-River Colony (S. A.).—Barrett-Hamilton, G. E. H., 1; Hatch, F. H., 2 & 3.
Orbicella.—Felix, J., 3; Shattuck, G. B., 1.
Orbiculoidea.—Chapman, F., 1; Weller, S., 2.
Orbignya.—Toucas, A., 2.
Orbitoides.—Douvillé, H., 4, 9; Martelli, A., 1; Oppenheim, P., 6; Schlumberger, C., 1 & 2.
Orbitolina.—Kossmat, F., 1.
Orbitolites.—Douvillé, H., 3 & 4; Munier-Chalmas, —, 1 & 2.
Orciano (Tuscany).—Ugolini, R., 1 & 3.
Ordovician, Britanny.—Barrois, C., 5; Kerforne, F., 1.
——, Caernarvon.—Fearnsides, W. G., 1.
——, Canada.—Ami, H. M., 1; Nolan, A. W., 1.
——, Minnesota.—Hall, C. W., 1.
——, New Jersey.—Weller, S., 2.
——, Ohio.—Nickles, J. M., 1.

Ordovician pebbles, Peel Red Sandstone.—Gill, E. L., 1.
——. *See also* Cambrian, &c.
Ore-deposits, Algeria.—Meunier, S., 16.
—— ——, Argentina.—Brinsmade, R. B., 1.
—— ——, Bavaria & Tyrol.—Weinschenk, E., 8.
—— ——, country-rock &.—Weed, W. H., 1.
—— ——, depth of.—Gregory, J. W., 5.
—— ——, estimation of extent of.—Kendall, J. D., 1.
—— ——, German African Colonies.—Macco, A., 1.
—— ——, Idaho.—Lakes, A., 2.
—— ——, India (N.W.).—Stephens, F. J., 1 & 2.
—— ——, Iowa.—Beyer, S. W., 1.
—— ——, Lake District.—Postlethwaite, J., 1.
—— ——, Man (I. of).—Lamplugh, G. W., 5.
—— ——, Mexico.—Aguilera, J. G., 1; Blake, W. P., 2; Halse, E., 1; Hill, R. T., 1.
—— ——, Newfoundland.—Howley, J. P., 1.
—— ——, origin of.—Kohler, E., 2; Krahmann, M., 1; Launay, L. de, 1; Lindgren, W., 2; Pošepný, F., 1; Van Hise, C. R., 1.
—— ——, secondary enrichment.—Lakes, A., 3; Rickard, T. A., 1; Weed, W. H., 14; Vogt, J. H. L., 1.
—— ——, Tasmania.—Stewart, H., 1; Twelvetrees, W. H., 1–10; Waller, G. A., 1–3.
—— ——, Transylvania.—Gesell, A., 1.
—— ——, volcanoes &.—Lakes, A., 13.
—— ——. *See also* Veins, Gold, &c.
Ores, percentage of metal in economic.—Hovey, E. O., 3.
——, pockets of.—Lakes, A., 14.
Örebro (Sweden).—Blomberg, A., 1.
Oregon (U.S.A.).—Bonney, T. G., 9; Diller, J. S., 1 & 3; Hay, O. P., 3; Knowlton, F. H., 1; Lindgren, W., 1; Russell, I. C., 5; Smith, G. O., 1; Washburne, C., 1.
Orel Gov. (Russia).—Derjavin, A., 1; Samoïlov, J., 4.
Organ Mts. (N. Mex.).—Lerchen, F. H., 1.
Oriskany Sandstone, Ohio.—Claypole, E., 1.
Orléanais (France).—Grossouvre, A. de, 4.
Ornithomimus.—Osborn, H. F., 4.
Ornithosuchus.—Boulenger, G. A., 1.
Orodus.—Eastman, C. R., 1.
Orography, Algeria.—Ritter, É., 1; Asia.—Richthofen, F. von, 1; Korea.—Kotô, B., 1; Lombardy.—Taramelli, T., 1.
Oroseris.—Osasco, E., 1.
Orsova, New (Servia).—Vinassa de Regny, P., 5.
Orthechinus.—Gauthier, V., 1.
Orthis.—Walther, K., 1; Weller, S., 2.
Orthoceras.—Airaghi, C., 1; Crick, G. C., 1; Hœrnes, R., 4; Ruedemann, R., 2.
Orthophragmina.—Schlumberger, C., 2.
Ortho-riebeckite-gneiss.—Keyserling, H. von, 2.
Orthothetes.—Weller, S., 2.
Orville (Aisne).—Briquet, A., 1.
Osborne Beds, I. of Wight.—Colenutt, G. W., 1; Woodward, H., 5.
Oschiri (Sardinia).—Pampaloni, L., 2.
Osmunda.—Penhallow, D. P., 1.
Osmundaceæ, Mesozoic.—Seward, A. C., 6.
Osmundites.—Penhallow, D. P., 1 & 2.
Ossiferous cavern, Buxton Pliocene.—Dawkins, W. B., 1.
Ostheim (Bavaria).—Blanckenhorn, M., 1.
Ostracoda, Ordovician.—Weller, S., 2.
——, Pleistocene.—Wuest, E., 1.
——, Silurian.—Jones T. R., 1; Weller, S., 2; Whiteaves, J. F., 1.
Ostrea.—Dacqué, E., 1; Hœrnes, R., 2; Oppenheim, P., 6; Shattuck, G. B., 1; Wollemann, A., 1.
Otago (N.Z.).—Park, J., 1.
Otodus.—Leriche, M., 1; Sangiorgi, D., 1.
Otozamites.—Mœller, H., 1.
Ottawa (Canada).—Ells, R. W., 2 & 3 Osann, A., 1.
—— (Kan.).—Yates, J. A., 1.
Ottenby (Œland).—Munthe, H., 2.
Oubangui (Sudan).—Lacoin, —, 1.
Oulad-Nayl Mts. (Algeria).—Ritter, E., 1.
Ovactæonina.—Chartron, C., 1.
Overthrusts, Denver.—Henderson, J., 1.
——, Vermont.—Dale, T., 1.
Ovifak (Greenland).—Winkler, C., 1.
Ovis.—Koch, A., 3; Toula, F., 4.
Oxfordshire.—Pears, T., 1; Walford, E. A., 1.
Oxyrhina.—Eastman, C. R., 2; Koch, A., 4; Leriche, M., 1.
Ozark (Mo.).—Bain, H. F., 2.
Ozieri (Sardinia).—Lovisato, D., 2.
Ozokerite, Galicia.—Galloway, W., 1.

Pachuca (Mexico).—Ordoñez, E., 3.
Pachyæna.—Boule, M., 2.
Pachygyra.—Felix, J., 2; Longhi, P., 1.
Pachymya.—Shattuck, G. B., 1.
Pacific Ocean.—Agassiz, A., 1 & 2; Eastman, C. R., 2; Skeats, E. W., 1; Verrill, A. E., 1.
Padirac Cavern (Lot).—Viré, A., 1.
Pagiophyllum.—Mœller, H., 1; Zeiller, R., 2.
Paintings, Palæolithic cave-.—Cartailhac, E., 1.
Paints, mineral.—Struthers, J., 14.
Palacheite.—Eakle, A. S., 1 & 2.
Palæatractus.—Cossmann, M., 1.
Palæmon.—Woodward, H., 5.

Palæobotany, text-book of.—Fritel, P. H., 1.

Palæochœrus.—Depéret, C., 3.

Palæocyon & *Palæolama.*—Ameghino, F., 2.

Palæolima.—Hind, W., 4.

Palæolithic horses.—Munro, R., 1.

—— implements, Heidelberg. — Schœtensack, O., 1; *see also* Implements.

—— Period, Saône-et-Loire. — Chantre, E., 1.

Palæomutela.—Kayser, E., 1.

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——, America (N.), 1901.—Weeks, F. B., 2; England (N.), 1900.—Sheppard, T., 4; Italy, 1901.—Bonarelli, G., 1.

——, evolution &.—Lydekker, R., 2 & 3; Woodward, H., 12.

——, vertebrate.—Woodward, A. S., 1.

Palæoscincus.—Osborn, H. F., 4.

Palæosolen.—Maurer, F., 1.

Palæosphæroma.—Remeš, M., 1.

Palæospondylus.—Sollas, W. J., 3.

Palæotherium.—Fœrster, B., 5.

'Palagonite-Formation,' Iceland.—Pjetursson, H., 1.

Palestine.—Blanckenhorn, M., 4; Libbey, W., 1 & 2.

Palissya.—Mœller, H., 1.

Palitz Lake (Hungary).—Treitz, P., 3.

Palluau (Vendée).—Michel-Levy, A., 1.

Palmavexi (Sardinia).—Rimatori, C., 2.

Paludestrina.—Stearns, R. E. C., 1.

Paludina.—Hudleston, W. H., 1.

Pampean.—Ameghino, F., 6.

Pandora.—Dollfus, G. F., 6.

Paolia.—Melander, A. L., 1.

Para (Brazil).—Angelis d'Ossat, G. de, 2.

Para-augite-gneiss.—Schalch, F., 1.

Paracerithium.—Chartron, C., 1.

Paracyclas.—Maurer, F., 1.

Paradise goldfield (Queensl.).—Ball, L. C., 2.

Parahyba do Norte (Brazil).—Branner, J. C., 1.

Paralegoceras.—Smith, J. P.

Parallelodon.—Bistram, A. von, 1.

PARANDIER, M. *See Obit.*, Lapparent, A. de, 1.

Parapara (N.Z.).—Park, J., 2.

Parasmilia.—Dennant, J., 1; Shattuck, G. B., 1.

Paratapirus.—Depéret, C., 3.

Pargny (Aisne).—Babinet, —, 1.

Paris (France).—Meunier, S., 3; Schafarzik, F., 7; Szontagh, T. von, 1; Wickersheimer, —, 1.

—— Basin (France). — Canu, F., 2; Dollfus, G., 1, 2, 5; Grossouvre, A. de, 1, 2, 4; Kemna, A., 2; Leriche, M., 3; Maillet, E., 1; Meunier, S., 6; Ramond, G., 1; *see also* Seine R., &c.

Paronosporites.—Pampaloni, L., 1.

Parsley Hay (Derby).—Arnold-Bemrose, H. H., 1.

Parthenay (Poitou).—Welsch, J., 1.

Pašman I. (Dalmatia).—Schubert, R. J., 1.

Patagonia (S. Am.).—Ameghino, F., 3–6; Cordovez, M., 1; Loriol, P. de, 2; Scott, W. B., 1; Scrivenor, J. B., 2; Tournouër, A., 1.

Patagonian.—Ameghino, F., 6.

Patella.—Chartron, C., 1; Shattuck, G. B., 1.

Patent-Office Library.—Dalton, C. N., 1.

Patrick (Wy.).—Adams, G. I., 1.

Pattalophyllia.—Osasco, E., 1.

Patula.—Fœrster, B., 5.

Paumotus Group (Pacific).—Skeats, E. W., 1.

Paving-stones, composition of.—Anon., 31; igneous rocks as.—Joly, J., 6.

Paznaun (Tyrol).—Greim, G., 1.

Pearl (Colo.).—Read, T. T., 1.

Pearls.—Jameson, H. L., 1; Lomas, J., 3 & 6.

Peat, Ashworth Moor.—Baldwin, W., 1.

——, Hanover.—Menzel, H., 1.

——, Ireland.—Johnson, T., 1.

——, Sweden.—Lagerheim, G., 1; Sernander, R., 1; Sjœgren, H., 1.

Pebbles, Calais (Pas-de-), glaciated.—Gosselet, J., 5; Salt Range, glaciated.—Koken, E., 4.

——, Devon (S.), Triassic.—Bonney, T. G., 7; Hunt, A. R., 5; (& Midlands Triassic).—Shrubsole, O. A., 1.

——, Erzgebirge gneiss with.—Gæbert, C., 1.

——, facetted. — Johnsen, A., 3 & 4; Koken, E., 3; *see also* Windworn stones, &c.

——. *See also* Gravels, Shingle, &c.

Pebbly Carboniferous Limestone, Derbyshire.—Arnold-Bemrose, H. H., 1.

Pechelbronn (Alsace).—Andreæ, A., 4; Herrmann, A., 1.

Pecten.—Bistram, A. von, 1; Bittner, A., 1; Blanckenhorn, M., 2; Burckhardt, C., 1; Crema, C., 1; Depéret, C., 4; Etheridge, R., Fil., 2; Franchis, F. de, 1; Martelli, A., 1; Oppenheim, P., 6; Paulcke, W., 1; Shattuck, G. B., 1; Ugolini, R., 4; Woods, H., 1.

Pectunculus.—Woods, H., 1.

Peel (I. of Man).—Gill, E. L., 1.

Pegge Mt. (Liguria).—Ristori, G., 2.

Pegmatite, Lombardy.—Bertolio, S., 1.

——, Sutherland.—Goodchild, J. G., 11.

—— vein, glacial shearing of.—Futterer, K., 1.

Pelado, Cerro (Mendoza).—Bodenbender, G., 1.

Pelé, Mt. (Martinique).—Anderson, T., 1–5; Branner, J. C., 4; Colonna, E., 1; Gautier, A., 1; Griffiths, A. B., 1; Hovey, E. O., 1, 2, 4, & 5; Lacroix, A., 1–4, 8, 9, & 12; Strachey, R., 1; Verrill, A. E., 3; *see also* Martinique, &c.

Peltephilus.—Scott, W. B., 1.
Peltoceras.—Burckhardt, C., 1.
Pelvoux massif.—Termier, P., 3.
Pemba I. (E. Africa).—Crossland, C., 1.
Pendleside Series, Derbyshire.—Stobbs, J. T., 2; Lancashire.—Hind, W., 1 & 2; Yorkshire.—Wellburn, E. D., 1.
Penmorfa (Caernarvon). — Fearnsides, W. G., 1.
Pennatulites.—Nelli, B., 1.
Pennine faults.—Kendall, P. F., 1.
Penning, W. H. *See Obit.*, Woodward, H. B., 4.
Pennsylvania (U.S.A.).—Adams, T. K., 1; Fuller, M. L., 1; Heurteau, C. E., 1; Lyman, B. S., 1; Simmersbach, B., 1; Stœk, H. H., 1; White, D., 3.
Penpethy Beds, Cornwall.—Parkinson, J., 1.
Pensauken Formation, Long Island (N.Y.).—Fuller, M. L., 3.
Pentacrinus.—Wollemann, A., 1.
Pentamerus.—Lotz, H., 1; Weller, S., 2.
Pentland Hills (Scotland).—Strachan, J., 1.
Pentremites.—Hambach, G., 1.
Penza (Russia).—Sinzow, I., 1.
'Peperino,' Campania.—Sabatini, V., 2; formation of.—Fantappié, L., 1.
Pericosmus.—Gauthier, V., 1; Martelli, A., 1.
Pericyclus.—Smith, J. P., 1.
Peripristis.—Eastman, C. R., 1.
Perisorites.—Pampaloni, L., 1.
Perisphinctes. — Burckhardt, C., 1; Loriol, P. de, 1.
Perm Gov. (Russia).—Vernadski, V., 1.
Permian, Alsace-Lorraine.—Benecke, E. W., 5; Brunzel, K., 1; Buecking, H., 3; Zeiller, R., 1.
——, Campine. — Lapparent, A. de, 4; Simoëns, G., 7 & 8.
——, China.—Schellwien, E., 1.
——, Cumberland.—Kendall, P. F., 1.
——, Devon.—Somervail, A., 2.
——, Durham & Northumberland. — Lebour, G. A., 1.
——, Frankenberg.—Stille, H., 4.
——, Kansas.—Jones, A. W., 1; Keyes, C. R., 3; Sellards, E. H., 3.
——, Pyrenees.—Caralp, J., 1–3.
——, Saône-et-Loire.—Delafond, F., 1.
——, Texas.—Case, E. C., 1 & 2; Sternberg, C. H., 2.
——, Vosges.—Delépine, G., 1.
Permo-Carboniferous, Australia (S).—Greenway, T. C., 1.
——, Mendoza.—Bodenbender, G., 1.
——, Nebraska.—Barbour, E. H., 1.
——, Rhodesia.—Arber, E. A. N., 5; Hind, W., 3; Molyneux, A. J. C., 1; Woodward, A. S., 10.
——, Salt-Range.—Koken, E., 4; Lapparent, A. de, 3.
——, Victoria (Austral.).—Kitson, A. E., 1; Thiele, E. O., 1.
Perna.—Burckhardt, C., 1.
Perranporth (Cornwall).—Scrivenor, J. B., 1.
Persberg (Värmland).—Launay, L. de, 4.
Persea.—Engelhardt, H., 1.
Persia.—Cotteau, G., 1; Gauthier, V., 1.
Persian fossil faunas & European. — Douvillé, H., 2.
Persona.—Cossmann, M., 2.
Peru (S. Am.).—Balta, J., &c., 1; Larrabure, E., 1; Paulcke, W., 1; Stevanović, S., 1.
Perugia (Umbria).—Bortolotti, C., 2.
Petalodus.—Eastman, C. R., 1.
Petervarad Mts. (Hungary).—Pethœ, J., 3
Pethœ, J. *See Obit.*, Bœckh, J., 2; Schafarzik, F., 3.
Petitor (Devon).—Hunt, A. R., 1.
Petra (Palestine).—Libbey, W., 2.
Petroleum, Burma.—Holland, T. H., 3.
——, California.—Mabery, C. F., 1.
——, Campania.—Anon., 25.
——, Canada.—Ingall, E. D., 2; Mabery, C. F., 1.
——, Colorado.—Lakes, A., 5.
——, Daghestan. — Golubyatnikov, D. V., 1.
——, distribution of.—Gærtner, S., 1; Hœfer, H., 1.
——, Dublin (*supposed*).—Cole, G. A. J., 4.
——, Egypt.—Barron, T., 1; Blanckenhorn, M., 4.
——, Galicia.—Galloway. W., 1.
——, India.—Grundy, J., 1.
——, Indiana. — Blatchley, W. S., 2; Zaring, W. C., 1.
——, Ohio.—Bownocker, J. A., 1; Claypole, E. W., 1; Griswold, W. T., 1; Mabery, C. F., 1.
——, Pennsylvania.—Fuller, M. L., 1; Mabery, C. F., 1.
——, Peru.—Garland, A., 1.
——, Rumania.—Angelis d'Ossat, G. de, 7; Poni, P., 1.
——, Tasmania.—Twelvetrees, W. H., 2.
——, Texas.—Lucas, A. F., 1; Mabery, C. F., 1; Stœk, H. H., 2.
——, text-book on.—Thomson, J. H., 1.
——, Turkestan.—Levat, E. D., 1 & 2.
——, United States, occurrences.—Day, D. T., 1; Oliphant, F. H., 1.
——. *See also* Kerosene, Oil-shales, &c.
Petrological ideas, evolution of.—Teall, J. J. H., 1.
—— sections of rocks.—Souza-Brandão, V. de, 1.
——, text-book.—Weinschenk, E., 1.
Petrology, 1901.—Morley, H. F., 1.
——, America (N.), 1901.—Weeks, F. B., 2.
——, British East Africa.—Prior, G. T., 2.
——, experimental.—Medanich, G., 1; Petrasch, K., 1.
——, Man (I. of).—Lamplugh, G. W. 5.

Petrology, photography.—Moss, W., 1.
——, quantitative classification.—Cross, W., 1.
Petromartus.—Melander, A. L., 1.
Petrovsk (Saratov).—Kalitzki, K., 1.
Pettardite.—Pettard, W. F., 1.
Pfaffenreuth (Bavaria).—Launay, L. de, 3.
Pfunderer Berg (Tyrol).—Weinschenk, E., 7.
Phacops.—Drevermann, F., 2.
Phalacrocorax.—Regàlia, E., 1.
Phandella.—Casey, T. L., 1.
Pharmacolite.—Schulten, A. de, 2.
Philippine Is.—Nichols, J. C., 1.
Phillipsastræa.—Penecke, K. A., 1.
Phillipsia.—Drevermann, F., 2; Parkinson, H., 1.
Phillipsite.—Hulyák, V., 1.
Phlegræan Fields (Campania).—Guenther, R. T., 1; Lorenzo, G. de, 1, 3–6.
Phoca.—Ugolini, R., 1–3.
Phœnicopsis.—Mœller, H., 1.
Pholadomya.—Burckhardt, C., 1; Etheridge, R., Fil., 2; Shattuck, G. B., 1.
Pholas.—Dollfus, G. F., 6.
Phonolite, Abyssinia.—Raisin, C. A., 1.
Phos.—Casey, T. L., 1; Cossmann, M., 2.
Phosgenite.—Warren, C. H., 1.
Phosphates, Australia (S.).—Brown, H. Y. L., 3 & 4; Chewings, C., 1.
——, Egypt.—Blanckenhorn, M., 4.
——, Nord.—Gosselet, J., 1.
——, Ocean I.—Reed, F. R. C., 3.
——, origin of.—Chewings, C., 1.
——, Otago.—Park, J., 1.
——, Quercy.—Stefano, G. de, 1.
——, Tennessee.—Safford, J. M., 2.
——, United States.—Struthers, J., 8.
Phosphatic chalk, Aisne.—Briquet, A., 1 & 2; Lasne, H., 1; Rabelle, —, 1.
——, natural dephosphating.—Gosselet, J., 3.
Phosphorite, Lorraine.—Van Werveke, L., 17.
Phosphorus, meteoric free.—Farrington, O. C., 1.
Photographs, geological. — Watts, W. W., 3.
Photography, fossils &.—Ingen, G. van, 1; geology &.—Woodward, H., 8; petrology &.—Heineck, F., 1; Moss, W., 1.
Phragmites.—Engelhardt, H., 1.
Phycodes.—Fuchs, T., 2.
Phylactella.—Maplestone, C. M., 1.
Phyllicardium.—Andrussov, N., 1.
Phyllites.—Knowlton, F. H., 1.
Phylloceras.—Burckhardt, C., 1; Loriol, P. de, 1.
Phyllocœnia.—Dacqué, E., 1; Felix, J., 2 & 4.
Phyllopoda, Silurian.—Schubert, R. J., 4.
Phyllosmilia.—Felix, J., 2.
Physa.—Springer, A., 1; Stearns, R. E. C., 1.
Physical geography, practical.—Davis, W. M., 2.
—— ——, Scania.—Hennig, A., 1.
—— ——, text-book.—Dryer, C. R., 1.
Physonemus.—Eastman, C. R., 1.
Phytophtirites.—Pampaloni, L., 1.
Picardy (France).—Bardou, —, 1; Barrois, C., 1; Desailly, —, 1; Gosselet, J., 1–6.
Pickering, 'lake' (Yorks).—Clark, J. E., 1.
Picromerite.—Van't Hoff, J. H., 5.
Pictures, cave.—Moissan, H., 2; Rivière, E., 1.
Piedmont (Italy).—Aimonetti, C., 1; Artini, E., 1; Bœris, G., 1; Novarese, V., 1 & 2; Patrini, P., 1; Roccati, A., 1; Sacco, F., 2; Silvestri, A., 1; Taramelli, T., 5; Termier, P., 3; Zaccagna, D., 1; Zambonini, F., 2 & 3.
Pierrefitte (Seine-et-Oise).—Meunier, S., 2.
'Pietre verdi,' Alpes-Maritimes.—Roccati, A., 1.
Pietrele Rosič-Lucaci massif (Rumania).—Butureanŭ, V. C., 1.
Pigtao (Philippine Is.).—Nichols, J. C., 1.
Pila.—Renault, B., 4.
Pileolus.—Dainelli, G., 3.
Pillow-lava, Newfoundland.—Daly, R. A., 1.
Pinacoceras.—Airaghi, C., 1.
Pinhay cliff (Devon).—Rowe, A. W., 2.
Pinna.—Beede, J. W., 1; Burckhardt, C., 1; Dainelli, G., 3; Shattuck, G. B., 1.
Piona (Lombardy).—Bertolio, S., 1.
Pioneer R. (Queensl.).—Cameron, W. E., 3.
Pisa (Tuscany).—Regàlia, E., 1.
Pisanite.—Schaller, W. T., 1.
Pit R. (Siberia).—Ijitzka, N., 1.
Pitheculus.—Ameghino, F., 4.
Pittsburg (Kan.).—Crane, W. R., 2; Haas, F., 1.
Pityophyllum.—Mœller, H., 1; Zeiller, R., 2.
Pitys.—Scott, D. H., 1.
Placenticeras.—Kossmat, F., 1.
Placer-gold, Colorado.—Lakes, A., 1; Turkestan.—Levat, E. D., 1.
Placocœnia & *Placohelia.*—Felix, J., 2.
Placosmilia.—Felix, J., 2; Longhi, P., 1.
Placunopsis.—Dainelli, G., J.
Plagiozamites.—Zeiller, R., 1.
Plains, alluvial.—Ellis, T. S., 1.
——, Alsace-Lorraine.—Schumacher, E., 5 & 6.
——, America (N.).—Davis, W. M., 3; Johnson, W. D., 1.
——, Germany (N.).—Jentzsch, A., 2.
——, Idaho.—Russell, I. C., 3.
Planetessimal hypothesis.—Chamberlin, T. C., 1.
Planets, gravity &.—Borredon, G., 1–5.

Planorbis.—Fœrster, B., 5; Pavlov, P. S., 2; Stearns, R. E. C., 1.
Plant-activity, ancient.—Renault, B., 2.
—— evolution, fossil.—Kinkelin, F., 1; Wieland, G. B., 2.
Plants, Arctic fossil.—Andersson, G., 2.
——, Carboniferous.—Arber, E. A. N., 1–5; Barsanti, L., 1; Benson, M., 1 & 2; Condra, G. E., 1; Etheridge, R., Fil., 4; Fuchs, T., 2; Kidston, R., 1 & 2; Lomas, J., 4 & 5; Oliver, F. W., 1; Poole, H. S., 1; Renault, B., 1–4; Scott, D. H., 1 & 2; Sellards, E. H., 2; Seward, A. C., 2–4; Zalesski, M., 1; Carboniferous to Quaternary. — Kinkelin, F., 1.
——, Cretaceous. — Clark, W. B., 1; Fliche, F., 1; Penhallow, D. P., 1 & 2; Staub, M., 1.
——, Devonian. — Nathorst, A. G., 1; Seward, A. C., 2; Staub, M., 1.
——, geology &.—Smith, W. G., 1.
——, Glacial Period &.—Anon., 35.
——, gneiss, &c., with remains of.—Dal Piaz, G., 1 & 2.
—— impressions, determinations from. —Bommer, O., 1.
——, Jurassic.—Kilian, W., 4; Mœller, H., 1; Nathorst, A. G., 2; Seward, A. C., 1–3 & 6; Staub, M., 1; Steinmann, G., 5; Zeiller, R., 2 & 3.
——, Permian.—Zeiller, R., 1.
——, Permo-Carboniferous.—Arber, E. A. N., 4; Etheridge, R., Fil., 1; Kurtz, F., 1; Smedley, H. E. H., 1.
——, Quaternary. — Andersson, G., 1; Sernander, R., 3; Quaternary to Carboniferous.—Kinkelin, F., 1.
——, Rhætic.—Mœller, H., 1; Seward, A. C., 4.
——, silicified.—Pampaloni, L., 2.
—— Silurian.—Seward, A. C., 3; White, D., 2; Whitfield, R. P., 4.
——, Tertiary. — Crevecœur, F. F., 1; Deane, H., 1; Engelhardt, H., 1; Fœrster, B., 5; Kerner, F., 1; Knowlton, F. H., 1; Lorenz, J. von, 2; Nelli, B., 1; Palibin, J. von, 1; Pampaloni, L., 1; Penhallow, D. P., 1; Rowe, J. P., 2; Seward, A. C., 5; Squinabol, S., 1; Staub, M., 1; Trotter, A., 1; Tuzson, J., 1.
——, text-book of fossil.—Fritel, P. H., 1.
——, Triassic. — Benecke, E. W., 2; Compter, G., 1; Fliche, P., 3 & 4; Frech, F., 1; Seward, A. C., 3.
——, Wealden.—Seward, A. C., 4.
——. *See also* Algæ, &c.
Plateaux, United States.—Davis, W. M., 3.
Platecarpus.—Williston, S. W., 2.
Platinum, Sudbury, nickel-ore with.—Dickson, C. W., 1.
——, United States.—Day, D. T., 1; Struthers, J., 2.
——, Urals.—Duparc, L., 2.
Platte R. (U.S.A.).—Condra, G. E., 2.
Platyceras & *Platyostoma.* — Weller, S., 2.
Platypygus.—Loriol, P. de, 2.
Platysmilia.—Felix, J., 2.
Platysomus.—Eastman, C. R., 1.
Platystrophia.—Cumings, E. R., 1.
Platytrochus.—Dennant, J., 1.
Platz, P. *See Obit.*, Anon., 10.
Plectambonites.—Chapman, F., 1.
Pleistocene. *See* Quaternary.
Plesictes.—Depéret, C., 3.
Plesiosaurus.—Williston, S. W., 3 & 4.
Plessur R. (Grisons).—Hœk, H., 1.
Pleurodesma.—Dollfus, G. F., 6.
Pleurodictyum.—Parkinson, H., 1.
Pleurograptus.—Elles, G. L., 1.
Pleuronautilus.—Airaghi, C., 1.
Pleurophorus.—Beede, J. W., 1; Yakovlev, N., 4.
Pleurostomella. — Liebus, A., 2; Silvestri, A., 1.
Pleurotoma.—Casey, T. L., 1.
Pleurotomaria. — Bistram, A. von, 1; Pritchard, G. B., 2; Shattuck, G. B., 1.
Plicatula.—Bistram, A. von, 1.
Pliocene, Alsace.—Van Werveke, L., 8.
——, Britanny.—Lebesconte, P., 1.
——, Caucasus.—Michalovski, G. P., 1.
——, Egypt, &c.—Blanckenhorn, M., 2.
——, England (N.W.). — Dawkins, W. B., 1; (S.E.).—Monckton, H. W., 5; Rutot, A., 4; (S.W.). — Johnson, J. P., 1.
——, Mediterranean shore-lines, Provence, &c.—Depéret, C., 2.
——, Piedmont.—Patrini, P., 1.
——, Rhine.—Lamothe, R. de, 2; Monckton, H. W., 5.
——, Sicily.—Seguenza, L., 1.
——, Spain.—Woodward, A. S., 4.
——. *See also* Tertiary.
Plocophyllia.—Osasco, E., 1.
Plocoscyphia. — Ungern-Sternberg, E. von, 1.
Plumasite.—Lawson, A. C., 2.
Podicipes.—Regàlia, E., 1.
Podocnemis.—Andrews, C. W., 1.
Podolia (Russia).—Venukov, P. I., 1.
Podozamites.—Mœller, H., 1.
Poitiers (France).—Michel-Lévy, A., 1; Welsch, J., 1.
Pojana-Ruszka (Hungary).—Schafarzik, F., 6.
Polar climates, evolution &.—Wieland, G. B., 2.
—— Expedition. *See* Arctic, &c.
Pollicipes.—Benham, W. B., 1.
Polycotylus.—Williston, S. W., 4.
Polygrata.—Weller, S., 2.
Polypora.—Penecke, K. A., 1.
Polytremacis.—Felix, J., 1.
Polyzoa. *See* Bryozoa.
Pomerania.—Berendt, G., 1.
Pondoland (Cape Colony).—Rogers, A. W., 3.
Ponor (Transylvania). — Telegd, L. R. von, 1.

Ponti (Marches, Italy).—Mariani. M., 1.
Pontiac Co. (Quebec).—Ells, R. W., 3.
Pontian, Austria.—Fuchs, T., 5; Croatia.—Gorjanovič-Kramberger, K., 2; Hungary.—Lœrenthey, E., 1.
Pontypridd (Glamorgan).—Strahan, A., 1 & 5.
Popanoceras.—Smith, J. P., 1.
Populus.—Engelhardt, H., 1; Knowlton, F. H., 1.
Porocidaris.—Checchia-Rispoli, G., 1.
Porosity, rock.—Moore, C. C., 1.
Porphyrite, Quenast.—Elsden, J. V., 4.
——, Styria.—Fabian, K., 1.
Porphyritic andesite, Wicklow.—Seymour, H. J., 2.
Porphyry, Augustusburg-i.-Sa.—Zimmermann, R., 1.
——, Black Forest.—Schalch, F., 1.
——, Greece.—Hilber, V., 2.
——, Hungary.—Schafarzik, F., 1.
——, Montenegro.—Manasse, E., 1.
——, Piedmont.—Taramelli, T., 5.
——, Silesia.—Dathe, E., 1.
——, Taunus.—Buecking, H., 5.
——, Tyrol.—Hammer, W., 2; Ippen, J. A., 1, 3, & 5; Romberg, J., 1 & 2; Wolff, F. von, 1.
——, Uri.—Bœckh, J., 3.
——, Venetia.—Keyserling, H. von, 1.
Porretta (Emilia).—Nelli, B., 1.
Port-Philip Head (Vict.).—Grant, F. E., 1.
Portland cement.—Kimball, L. L., 6; Russell, I. C., 2; Taff, J. A., 2.
Portlandian, Bavaria, &c.—Schmierer, T., 1; Boulonnais.—Zeiller, R., 3.
Portoferraio (Liguria).—Cortese, P., 1.
Portotorres (Sardinia).—Lovisato, D., 1.
Portovenere (Liguria).—Capellini, G., 2.
Portugal.—Choffat, P., 4; Felix, J., 4.
Possession Is. (Gulf of Carpentaria).—Jackson, C. F. V., 3.
Post, H. von. *See Obit.*, Svenonius, F., 1.
Post-Glacial Beds, Dundee.—Durham, J., 1.
Pot-holes, Bitterfeld.—Riedel, O., 1.
——, Magdeburg.—Wahnschaffe, F., 1.
Potash-salt deposits.—Lang, O., 1; Lœwe, L., 1; Ochsenius, C., 1; Van't Hoff, J. H., 1–5.
Potchefstroom (Transvaal).—Hatch, F. H., 2.
Potomac Group.—Clark, W. B., 1.
Powell, J. W. *See Obit.*, Anon., 11; Gilbert, G. K., 1; Merrill, G. P., 5; Walcott, C. D., 7.
Præradiolites.—Douvillé, H., 6.
Præsorites.—Douvillé, H., 3.
Prägratten (Tyrol).—Pohl, O., 1.
Prague (Bohemia).—Fritsch, A., 1; Počta, P., 1.
Precious stones, Mexico.—Kunz, G. F., 2; United States.—Day, D. T., 1; Kunz, G. F., 3.
Predazzo (Tyrol),—Dœlter, C., 3; Ippen, J. A., 1–7; Romberg, J., 1 & 2.
Prehnite.—Fromme, J., 1.
Prenaster.—Loriol, P. de, 2.
Preolenna (Tasmania).—Twelvetrees, W. H., 2.
Prescott Co. (Ontario).—Ells, R. W., 3.
Primates, origin of.—Wortman, J. L., 1.
——, Quaternary.—Lorenz, L. von, 1; *see also* Man, &c.
Prince Albert Div. (Cape Colony).—Rogers, A. W., 5.
Prince-of-Wales Island (Alaska).—Thomæ, W. F. A., 1.
Prince-Rudolph I. *See* Rudolph.
Prionastræa.—Osasco, E., 1.
Prionoceras.—Smith, J. P., 1.
Prizac (Morbihan).—Gaubert, P., 1.
Proarcestes.—Airaghi, C., 1.
Proboscidella.—Tchernyshev, T., 1.
Procerithium.—Chartron, C., 1.
Prodromites.—Smith, J. P., 1.
Productus.—Nœtling, F., 2; Tchernyshev, T., 1.
—— limestone, Salt Range.—Lapparent, A. de, 3.
Proëtus.—Weller, S., 2.
Proëutatus.—Scott, W. B., 1.
Progenetta.—Major, C. I. F., 1.
Prolecanites.—Smith, J. P., 1.
Promathildia.—Bistram, A. von, 1; Chartron, C., 1.
Promysops.—Ameghino, F., 5.
Pronorites.—Smith, J. P., 1.
Propalæmon.—Woodward, H., 5.
Propalæohoplophorus.—Scott, W. B., 1.
Propolymastodon.—Ameghino, F., 5.
Propterus.—Sauvage, H. E., 2.
Proroporus.—Liebus, A., 2.
Prosocœlus.—Maurer, F., 1; Walther, K., 1.
Protamusium.—Etheridge, R., Fil., 2.
Proteodidelphys.—Ameghino, F., 4.
Prothyris.—Drevermann, F., 2.
Protocardia & *Protocerithium.*—Bistram, A. von, 1.
Protodictyon.—Melander, A. L., 1.
Protoseris.—Felix, J., 2.
Protosphyræna.—Leriche, M., 1.
Proustite.—Lamplough, F. E. E., 1.
Provence (France).—Depéret, C., 2; Douvillé, H., 4; Frech, F., 1; Jacob, C., 1; Pellat, E., 1; Répelin, J., 1; Toucas, A., 1.
Prozaëdius.—Scott, W. B., 1.
Prunus.—Knowlton, F. H., 1.
Prussia (Germany).—Geinitz, E., 3; Jentzsch, A., 4; Michael, R., 3; Ungern-Sternberg, E. von, 1.
Psammechinus.—Loriol, P. de, 2.
Pseudamusium.—Hind, W., 4.
Pseudavicula.—Etheridge, R., Fil., 2.
Pseudoamnicola.—Pavlov, P. S., 2.
Pseudoasterophyllites.—Zeiller, R., 2.
Pseudocidaris.—Loriol, P. de, 2.
Pseudocorax.—Leriche, M., 1.
Pseudocrinites.—Schuchert, C., 5.
Pseudolestodon.—Ameghino, F., 2.
Pseudomelania.—Chartron, C., 1.

Pseudomonotis.—Bistram, A. von, 1; Burckhardt, C., 1; Diener, C., 1; Newton, R. B., 1; Yakovlev, N., 4.
Pseudomorphs.—Cohen, E., 3; Gœssl, J., 1; Goodchild, J. G., 9; Van Werveke, L., 3; Vernadski, V. S., 3.
Pseudosalenia.—Loriol, P. de, 2.
Pseudotissotia.—Solger, F., 1.
Pseudotsuga.—Penhallow, D. P., 1.
Psygmophyllum.—Seward, A. C., 2.
Pteranodon.—Eaton, G. F., 2.
Pteraspis.—Dollo, L., 4; Fox, H., 1.
Pteria.—Etheridge, R., Fil., 2.
Pteridorachis.—Nathorst, A. G., 1
Pterinopecten.—Hind, W., 4.
Pteris.—Dean, H., 1.
Pterocarya.—Engelhardt, H., 1.
Pterodactyls.—Eaton, G. F., 2; Langley, S. P., 1; Lucas, F. A., 2.
Pterodon.—Andrews, C. W., 3.
Pteroperna.—Dainelli, G., 3.
Pterophyllum.—Mœller, H., 1.
Pteropoda, Tertiary.—Fuchs, T., 4; *see also* Gasteropoda.
Ptilodictya.—Weller, S., 2.
Ptilolite.—Colomba, L., 1.
Ptilozamites.—Mœller, H., 1.
Ptychides & *Ptychites.*—Airaghi, C., 1.
Ptychoceras.—Sarasin, C., 2; Uhlig, V., 1.
Ptychodus.—Leriche, M., 1.
Ptychoparia, *Ptychopteria*, & *Ptychopyge.*—Weller, S., 2.
Puchov Marls, Hungary.—Liebus, A., 1.
Puget Sound (Alaska).—Brooks, A. H., 1.
Pugnax.—Tchernyshev, T., 1.
Punjab (India).—Simpson, R. R., 1.
Puracé volcano, Colombia.—White, R. B., 1 & 2.
Purbeck, I. of (Dorset).—Hudleston, W. H., 1.
Purbeck Beds, Wiltshire.—Jukes-Browne, A. J., 2.
Purpurina.—Moore, J. E. S., 1.
Puy-de-Dôme (Auvergne).—Brunhes, B., 2.
Pycnochlorite.—Fromme, J., 1.
Pyrenees (French, &c.)—Bertrand, L., 1; Caralp, J., 2 & 3; Carez, L., 3; Frech, F., 1; Garrigou, F., 1; Roussel, J., 1 & 2; Stuart-Menteath, P. V., 1–3.
Pyrgulifera.—Moore, J. E. S., 1.
Pyrimont-Challonges (Savoy).—Depéret, C., 3.
Pyrites.—Achiardi, G. d', 4; Eckel, E. C., 1; Knett, J., 2; Melczer, G., 1; Schaller, W. T., 1; Struthers, J., 9.
Pyromorphite.—Bowman, H. L., 1.
Pyrophyllite.—Morozevich, I., 2.
Pyrotherium.—Ameghino, F., 1 & 2.
Pyroxene.—Weidman, S., 1.
—— -melanite.—Colomba, L., 2; Franchi, S., 3.
——, titaniferous.—Winchell, A. N., 4.
Pyrrhotine.—Zambonini, F., 3.
Pythites.—Pampaloni, L., 1.
Quarries, Great Britain, &c.—Atkinson, J. B., 1; Foster, Sir C. Le N., 1 & 2.
——, Paris, ancient subterranean.—Wickersheimer, —, 1.
Quartz.—Achiardi, G. d', 3; Barker, T. V., 1; Gœssl, J., 1; Knett, J., 1; Lincio, G., 1; Zimmermann, R., 1.
—— dykes, Man (I. of).—Bonney, T. G., 4; Lomas, J., 1.
——, etching in conglomerates.—Fuller, M. L., 2.
—— -porphyry, Augustusberg.—Zimmermann, R., 1; Botzen.—Wolff, F. von, 1; Hungary.—Schafarzik, F., 1; Uri.—Bœckh, J., 3.
—— reefs, Waihi goldfield.—Morgan, P. C., 1.
—— veins.—Harker, A., 3; Hunt, A. R., 2; Joly, J., 3.
Quartzite, markings in Rocky Mts.—Bonney, T. G., 2 & 6.
——, Neuweilnau.—Maurer, F., 1.
——, Ural Mts.—Duparc, L., 7.
Quaternary, Alpes Maritimes.—Riaz, A. de, 2.
——, Alsace-Lorraine.—Dœderlein, L., 1 & 2; Fœrster, B., 4 & 6; Schumacher, E., 3; Van Werveke, L., 18.
——, Aniene Valley.—Viola, C., 1.
—— Basilicata Lakes.—Lorenzo, G. de, 2.
——, Belfast.—Præger, R. L., 2.
——, Belgium.—Delvaux, E., 1; Fourmarier, P., 1; Rutot, A, 1 & 4; Van den Broeck, E., 5; Van Ertborn, O., 7.
——, Berkshire.—Blake, J. H., 1.
——, Bottendorf.—Wuest, E., 2.
——, Californian elevation.—Turner, H. W., 1.
——, classification of.—Dollfus, G. F., 3.
——, Cornwall.—Bullen, R. A., 2; Johnson, J. P., 1; Kennard, A. S., 1.
——, Denmark.—Wesenberg-Lund, C., 1.
——, England (S.E.).—Monckton, H. W., 1 & 6; *see also* Berkshire, &c.
——, Hanover.—Menzel, H., 1.
——, Holland.—Lorié, J., 1; Rutot, E., 4.
——, Lansing (Kan).—Winchell, N. H., 3.
——, Leicester.—Fox-Strangways, C., 1.
——, Long Island (N.Y.).—Fuller, M. L., 3.
——, Meuse R. variations.—Bois, P., 1.
——, Moravia.—Kříz, M., 1.
——, Nord.—Gosselet, J., 2 & 5.
——, Norway.—Monckton, H. W., 3.
——, Oxfordshire.—Pears, T., 1.
——, Paris Basin.—Meunier, S., 6; Ramond, G., 1.
——, Patagonia.—Ameghino, F., 6.
——, Prussia.—Berendt, G., &c., 1; Frech, F., 2; Geinitz, E., 3; Michael, R., 3.
——, ——, with Jurassic corals.—Oppenheim, P., 4.

Quaternary, Rhein-Hesse.—Schopp, H., 1.
——, Rumania.—Sevastos, R., 4.
——, Samara Gov.—Neustruev, S., 1.
——, Salt Range.—Koken, E., 1.
——, Schleswig-Holstein, &c.—Stolley, E., 1.
—— shore-lines, France (S.).—Depéret, C., 2.
——, Thames Valley.—Kennard, A. S., 2; Newton, E. T., 2.
——, Thuringia.—Wuest, E., 3 & 4.
——, Vaud.—Meunier, S., 8.
——, Victoria (Austral.).—Dennant, J., 3.
——. *See also* Drift, Lœss, &c.
Quiberon (Britanny). — Montessus de Ballore, F. de, 1.
Quicksilver, Dalmatia.—Bukowski, G. von, 1; Bohemia. — Liebus, A., 1; Texas.—Hill, B. F., 1; Moses, A. J., 1; Tuscany.—Lotti, B., 3.
——, United States production.—Day, T., 1; Struthers, J., 3.
Quebec (Canada).—Ells, R. W., 2 & 3.
——, Prov. (Canada). — Adams, F. D., 3; Ami, H. M., 8.
'Queen Stone,' Huntsham.—Wood, J. G., 1.
Queensland. — Ball, L. C., 1, 2 & 3; Cameron, W. E., 1–3; Coghlan, T. A., 1; Dixon, R., 1; Dunstan, B., 1–3; Gregory, J. W., 6; Jackson, C. F. V., 1–3.
Quenast (Brabant).—Elsden, J. V., 4; Lagrange, E., 1; Simoëns, G., 5.
Quercus.—Engelhardt, H., 1; Knowlton, F. H., 1; Palibin, J. von, 1.
Quercy (Guienne).—Stefano, G. de, 1.
Quillan (Languedoc).—Carez, L., 1.

Radiolaria, Borneo.—Molengraaff, G. A. F., 1.
Radiolites.—Dacqué, E., 1; Douvillé, H., 6.
Radium, age of the earth &.—Joly, J., 4.
Radula.—Etheridge, R., Fil., 2.
Rain-fall, underground water-level &.—Hooker, C. P., 1.
Rain-spots, fossil.—Schmitz, G., 1.
Raised beaches, Cornwall. — Johnson, 1; Kennard, A. S., 1; Co. Cork glacial. —Muff, H. B., 1; Massachusetts.—Tarr, R. S., 1; origin of.—Reade, T. M., 2; Scandinavia. — Kœvesligethi, R. von, 1; Tor Bay.—Hunt, A., R., 8.
Rajputana (India).—La Touche, T. D., 1.
Rakonitz (Bohemia).—Weithofer, K. A., 1.
Ralligstöcke (Berne).—Douvillé, H., 10.
Rana.—Fraas, E., 3.
Randengrobkalk, Helvetian &.—Rollier, L., 3.
Ranella.—Cossmann, M., 2.
Rangifer.—Alessandri, G. de, 1; Kříz, M., 1.
Rapakivi-diabase, S. Russia.—Popov, S. P., 1.
Raphistoma.—Cossmann, M., 2; Weller, S., 2.
Rappoltsweiler (Alsace).—Van Werveke, L., 5.
Rare earths.—Magee, W. H., 1.
Rashleigh collection of minerals.—Enys, J. D., 1.
Rasina R. (Servia).—Eletz, V. M., 1.
Raspite.—Hussak, E., 1.
Ratitæ, Tertiary.—Ihering, H. von, 1.
Ravenswood (Queensland). — Cameron, W. E., 3.
Reading (Berks.).—Blake, J. H., 1.
Recco (Liguria).—Ristori, G., 2.
Receptaculites.—Weller, S., 2.
Recoaro (Venetia).—Oppenheim, P., 6.
Red Chalk, Norfolk.—Elsden, J. V., 5.
'Red-rain' dust, analyses of.—Thorpe, T. E., 1.
—— ——, Canary Is.—Tacquin, A., 1.
—— ——, Italy.—Flores, E., 1.
—— ——, Portugal.—Choffat, P., 4.
—— ——, Victoria.—Chapman, F., 2.
Red rock, Campine.—Lapparent, A. de, 5; Simoëns, G., 7 & 8; Stainier, X., 3.
Redonian.—Kerforne, F., 3; Lebesconte, P., 1.
Redruth (Cornwall).—Hill, J. B., 1.
Reed City (Mich.).—Preston, H. L., 2.
Reefs, Bendigo goldfield.—Cundy, W. H., 1.
Reifnigg (Styria).—Medanich, G., 1.
Reinschia.—Renault, B., 4.
Reitsburg (Orange R. Colony).—Hatch, F. H., 3.
Remopleurides.—Reed, F. R. C., 5.
Remouchamps (Liége).—Rahir, E., &c., 2.
Renard, A. F. *See Obit.*, Geikie, Sir A., 1.
Rencheux (Belgium).—Delvaux, E., 1.
Rennes (Ille-et-Vilaine).—Bézier, T., 1.
Rensselæria.—Weller, S., 2.
Reptilia, Carboniferous.—Jækel, O., 2 & 3.
——, Cretaceous.—Beecher, C. E., 2; Clark, W. B., 1; Eaton, G. F., 2; Lambe, L. M., 1 & 2; Lucas, F. A., 1 & 2; Nopčsa, F. von, Jun., 2–4 & 6–7; Osborn, H. F., 4; Williston, S. W., 1–4.
——, evolution of.—Lydekker, R., 2.
——, flying.—Langley, S. P., 1.
——, Jurassic. — Andrews, C. W., 2; Fraas, E., 2; Gilmore, C. W., 1; Hatcher, J. B., 2; Knight, W. C., 3; Nopčsa, F. von, Jun., 5 & 8; Pauw, L. F. de, 1 & 2; Riggs, E. S., 1; Sheppard, T., 1; Thévenin, A., 1; Williston, S. W., 4.
——, life-habits of fossil. — Williston, S. W., 3.
——, Permian.—Case, E. C., 1 & 2.
——, Permo - Carboniferous. —Vaillant, L., 1.
——, Tertiary. — Andrews, C. W., 5; Fœrster, B., 5; Fraas, E., 3; Gerhardt, K., 1; Hay, O. P., 3; Lydekker,

R., 1; Sinclair, W. J., 1; Stefano, G. de, 3; Stehlin, H. G., 2; Stromer, E. von, 5.
Reptilia, Triassic.—Boulenger, G. A., 1; Broom, R., 1, 3, & 4; Frech, F., 1; Merriam, J. C., 1; Nopčsa, F. von, Jun., 1; Woodward, A. S., 7; Yakovlev, N., 3.
——, Wealden.—Andrews, C. W., 2; Dollo, L., 3.
——. *See also* Chelonia, &c.
Requienia.—Franchis, F. de, 1.
Retepora.—Maplestone, C. M., 1.
Reticularia.—Œhlert, D. P., 1.
Retzia.—Bittner, A., 1; Walther, K., 1.
Reuss glacier (Uri).—Penck, A., 1.
Rhabdocidaris.—Gauthier, V., 1 & 2; Loriol, P. de, 2.
Rhætic, Bornholm.—Mœller, H., 1.
——, Gloucestershire.—Richardson, L., 2 & 5; Tomes, R. F., 1.
——, Mendoza.—Bodenbender, G., 1.
——, occurrence of.—Frech, F., 1.
——, Rhenish Prussia.—Mueller, G., 1.
——, Savoy.—Preiswerk, H., 1.
——, Somerset.—Short, A. R., 1.
——, Worcestershire.—Richardson, L., 3.
Rhein-Hesse (Germany).—Schopp, H., 1.
Rhenish Bavaria.—Ammon, L. von, 1; Schalch, F., 1.
—— Devonian.—Maurer, F., 1.
—— Prussia.—Drevermann, F., 2; Walkhoff, O., 1.
—— -Schiefergebirge (Westphalia & Nassau).—Kaiser, E., 1.
Rhine River.—Andreæ, A., 5; Monckton, H. W., 5; Schumacher, E., 6.
—— ——, Pliocene.—Lamothe, R. de, 2.
—— Valley, Lower.—Kœnen, C., 1.
Rhinidictya.—Weller, S., 2.
Rhinoceros.—Bartolotti, C., 2; Depéret, C., 3; Lucas, F. A., 3; Venukov, P. I., 1.
Rhipidogyra.—Felix, J., 2; Longhi, P., 1.
Rhipidomella.—Tchernyshev, T., 1; Weller, S., 2.
Rhizomopteris.—Nathorst, A. G., 1.
Rhizophyllum.—Etheridge, R., Fil., 3.
Rhizopoterion.—Ungern-Sternberg, E. von, 1.
Rhodanomys.—Depéret, O., 3.
Rhodesia (S. Afr.).—Arber, E. A. N., 4; Hind, W., 3; Mennell, F. P., 1, 2 & 3; Molyneux, A. J. C., 1; Woodward, A. S., 10.
Rhodochrosite.—Johnsen, A., 1.
Rhodope Mts. (Turkey).—Hœrnes, R., 3.
Rhombopora.—Condra, G. E., 1.
Rhomboptera.—Weller, S., 2.
Rhön Mts. (Germany).—Blanckenhorn, M., 1; Buecking, H., 4; Wuest, E., 5.
Rhône R. (France).—Boistel, A., 1.
Rhynchonella.—Antula, J., 1; Bittner, A., 1; Drevermann, F., 2; Etheridge, R., Fil., 2; Gortani, M., 3; Remeš, M., 2; Tchernyshev, T., 1; Weller, S., 2.
Rhynchotreta.—Weller, S., 2.
Ribeirella & *Ribeiria.*—Schubert, R. J., 4.
Ribemont (Aisne).—Rabelle, —, 1.
Richmond (Va.).—Woodworth, J. B., 1 & 2.
Richmond Formation, Indiana.—Fœrste, A. F., 1; Ohio.—Nickles, J. M., 1.
Richmond R. (N.S.W.).—Mingaye, J. C. H., 2.
Rickardite.—Ford, W. E., 1.
Rico Mts. (Colo.).—Ransome, F. L., 1.
Ridgeway (Dorset).—Darwin, H., 1.
Riebeckite.—Butureanŭ, V. C., 2.
Ries (Würtemberg).—Fraas, E., 1; Schmidt, A., 1 & 2.
Riesengebirge (Silesia).—Berg, G., 1.
Rift-valleys.—Mennell, F. P., 3.
Rimella.—Cossmann, M., 2.
Ringicula.—Cossmann, M., 1.
Riva (Tyrol).—Tietze, E., 5.
River-curves.—Callaway, C., 2; Davis, W. M., 5; Ellis, T. S., 1.
—— -erosion.—Ball, J., 1; Hobbs, W. H., 3.
—— -robbing.—Fournier, E., 1; Mills, F. S., 2.
—— -terraces, California.—Hershey, O. H., 3 & 5.
—— -valleys, Almond buried.—Cadell, H. M., 2; permanence of.—Hill, E., 1.
Rivers, subterranean.—Fortin, R., 1; Fournier, E., 1; Van den Broeck, E., 15.
Riversdale Formation, Nova Scotia.—Ami, H. M., 2.
Road-metal.—Bock, J., 1; Claes, —, 1; I'Anson, J. C., 1.
Robache (Vosges).—Delépine, G., 1.
Rocamadour (Lot).—Viré, A., 1.
Rock-analyses.—Dittrich, M. 1; Gans, R., 1; Osann, A., 3.
—— -basins, Ontario.—Coleman, A. P., 1.
—— magmas. *See* Magmas.
—— metamorphism.—*See* Metamorphism, &c.
—— -sections, microscope.—Fedorov, E., 3; Souza-Brandão, V. de, 1; Stœber, F., 2; Canada balsam in thin sections.—Benedicks, C., 1; photography of.—Heineck, F., 1; Moss, W., 1; scratches on.—Jevons, H. S., 1.
Rockall (Atlantic).—Green, W. S., 1.
Rocks, action of ammonium-chloride on.—Clarke, F. W., 2.
——, electrical resistance of.—Angelis d'Ossat, G. de, 1.
——, fragmental.—Bonney, T. G., 1.
——, origin of.—Kohler, E., 2.
——, rigidity of.—Kusakabe, S., 1 & 2.
——, thermal conductivities of.—Peirce, B. O., 1.
——, volume-composition of.—Moore, C. C., 1.

Rocky Mts. (Alaska).—Schrader, F. C., 1; (Canada).—Bonney, T. G., 2, 6, & 11; Coleman, A. P., 3; Collie, J. N., 1; Woodward, H., 7; (U.S.A.).—Stobbs, L. S., 1.
Rodentia, Quaternary.—Nehring, A., 1.
——, Tertiary.—Ameghino, F., 5; Matthew, W. D., 4; Osborn, H. F., 3; Sinclair, W. J.
——. *See also* Mammalia.
Rome (Italy), R. School of Engineers.—Meli, R., 2.
——, Prov. of.—Moderni, P., 2; Verri, 5; Viola, C., 1.
Römerite.—Scharizer, R., 1.
Romingeria.—Beecher, C. E., 1; Weller, S., 2.
Ronzotherium.—Deninger, K., 1.
Rosa, Mte., Italian side of.—Dainelli, G., 2.
Roscommon (Ireland).—Kidston, R., 1.
Rosita (Colo.).—Welles, A. M., 1.
Rossboden Glacier (Simplon).—Schardt, H., 4.
Ross-shire (Scotland).—Clough, C. T., 2.
ROTHWELL, R. P. *See Obit.*, Raymond, R. W.
Rousses, Grandes, massif (Dauphiné).—Termier, P., 3.
Routivaara (Norrbotten).—Launay, L. de, 4.
Rovereto (Tyrol).—Tietze, E., 4.
Royat (Auvergne).—Brunhes, B., &c., 1.
Royston (Herts).—Woodward, H. B., 2 & 9.
Rubbiano (Emilia).—Sangiorgi, D., 1.
Rudistæ, Cretaceous.—Douvillé, H., 6, 7; Hilber, V., 1.
—— -limestone, Dalmatia.—Schubert, R. J., 3.
Rudolph (Prince) I.—Colomba, L. 1.
RUFFORD, P. J. *See Obit.*, Woodward, H., 13.
Ruhr R. (Westphalia).—Middelschulte, A., 1.
Rulac.—Knowlton, F. H., 1.
Rum, I. of (Hebrides).—Harker, A., 2.
Rumania.—Angelis d'Ossat, G. de, 7; Bergeron, J., 1; Butureanŭ, V. C., 1–3; Cadere, D., 1; Mrazec, L., 1; Nicolau, T., 1; Poni, P., 1; Sevastos, R., 1–4; Simionescŭ, J. T., 1–3; Uroshev, S., 1.
Rupelian, Belgium.—Forir, H., 1.
Russel Co. (Ontario).—Ells, R. W., 3.
Russia (Central).—Bogoslovski, N. A., 1; (S.).—Popov, S. P., 2; Sokolov, N., 1.
——. *See also* Ekaterinoslav, Urals, &c.
Russian Devonian fauna.—Schuchert, C., 4.
Rzeszów (Galicia).—Friedberg, G., 1.

Saba I. (W. I.).—Sapper, K., 9.
Sabbione Valley (Piedmont).—Roccati, A., 1.
Sabero (Léon).—Mallada, L., 1.
Saccoblastus.—Hambach, G., 1.
Safet-Daria Valley (Bokhara).—Levat, E. D., 1.
Sagenodus.—Eastman, C. R., 1.
Sagenopteris.—Penhallow, D. P., 1.
Saghalin I. (Siberia).—Hawes, C. H., 1; Yabe, H., 1.
Sahara (Africa).—Hochreutiner, B. P. G., 1; Jourdy, E., 1.
Saint Christopher (W.I.).—*See* St. Kitts.
—— Erth (Cornwall).—Millett, F. W., 1.
—— Eustatius (W.I)..—Sapper, K., 9.
—— Gall (Savoy).—Lugeon, M., 1.
—— Gaudens (Haute-Garonne).—Carez, L., 7.
—— Girons (Ariège).—Carez, L., 5.
—— Helena (Atlantic).—Berg, G., 2.
—— Helen's I. (Canada).—Nolan, A.W., 1.
—— Kitts (W.I.).—Fels, G., 1; Sapper, K., 7.
—— Lawrence R. (N. Am.).—Upham, W., 5.
—— Lucia (W.I.).—Sapper, K., 5.
—— Martory (Haute-Garonne).—Carez, L., 4.
—— Minver (Cornwall).—Fox, H., 2.
—— Pierre (Martinique).—Lacroix, A., 2.
—— Pierre I. (Newfoundland).—Breton, —, Le, 1.
—— Thomas I. (Atlantic).—Berg, G., 2.
—— Vincent (W.I.).—Anderson, T., 1–5; Coppock, J. B., 1; Curtis, G. C., 1 & 3; Hœrnes, R., 6; Hovey, E. O., 1; Howe, E., 1; Klein, C., 1; Lacroix, A., 6, 8 & 9; Lobley, J. L., 1; Powell, H., 1 & 2; Sapper, K., 4 & 12; Spencer, J. W., 1, 2, & 4; Stuebel, A., 2; Supan, A., 1.
Salem (Ind.).—Ashley, G. H., &c., 1.
Salenia.—Loriol, P. de, 2.
Salenidia.—Lambert, J., 1.
Salisbury (Wilts).—Andrews, W. R., 1; Reid, C., 7.
—— (Tasmania).—Twelvetrees, W. H., 4.
Salix.—Engelhardt, H., 1; Knowlton, F. H., 1.
Salt, age of the earth &.—Mackie, W., 1.
——, blue rock-.—Ochsenius, C., 3.
——, Galicia.—Schrœter, A., 1.
——, Germany.—Lœwe, L., 1; Ochsenius, C., 1 & 4; Van't Hoff, J. H., 1–5.
——, India.—Grundy, J., 1.
——, influence in nature.—Walther, J., 2.
—— lakes, Yenisei Gov.—Ludwig, F., 1; Tolmashev, J. P., 2.
——, oceanic deposits.—Van't Hoff, 1–5.
——, origin of rock-.—Goodchild, J. G., 3.
——, Rumania.—Mrazec, L., 1.
——, United States.—Struthers, J., 11.
—— -water, Carboniferous.—Cornet, J 1; Gevers-Orban, E., 1.

Salt Range (Punjab).—Koken, E., 1–4; Lapparent, A. de, 3; Seeley, H. G., 1.
Saltpetre. — Flamand, G. B. M., 1; Grundy, J., 1.
Salvador (Central Am.).—Sapper, K., 2.
Salzburg (Austria). — Crammer, H., 1; Fugger, E., 1; Lorenz, J. von, 2; Tietze, E., 4.
Salzkammergut (Austria).—Mojsisovics, E. von, 2.
Samara Gov. (Russia).—Neustruev, S., 1.
Samarskite.—Barker, G. F., 1.
San Cristobal (Lower California). — Schmidt, C., 2; Schottler, W., 2.
—— Diego (Cal.).—Lakes, A., 10; Schaller, W. T., 1.
—— Juan Mts. (Mendoza). — Bodenbender, G., 1.
—— Luis Potosi (Mexico). — Manzano, J. P., 1.
—— Marino (Lombardy).—Salmojraghi, F., 1.
—— Orso (Venetia).—Oppenheim, P., 6.
—— Stefano del Comelico (Venetia).—Geyer, G., 1.
Sancerrois (France).—Raulin, V., 1.
Sand, absorption of liquids & gases.—Spring, W., 1.
—— -drifting, sedimentation &.—Hunt, A. R., 3.
—— - dunes, Towan Head.—Johnson, J. P., 1; Kennard, A. S., 1; *see also* Dunes.
——, Ille-et Vilaine.—Lechartier, G., 1.
——, mechanical analysis of.—Vinassa de Regny, P., 3.
——, Moselle R. volcanic.—Van Werveke, L., 2.
——, Paris Basin, granitic. — Dollfus, G., 1; Grossouvre, A. de, 4.
——, quartz-veins &.—Hunt, A. R., 2.
——, Yorkshire sea-.—Richardson, H., 1.
Sandfly R. (Tasmania). — Twelvetrees, W. H., 5.
Sandstones, analyses of British.—Anon., 34.
——, Bamberg, calcareous. — Barnes, J., 1.
——, Belgian.—Claes, —, 1.
——, Carpathian Gault.—Sevastos, R., 2.
—— dykes, Columbus (Ga.).—McCallie, S. W., 2.
——, Ireland.—Elsden, J. V., 8.
——, Moray-Firth Basin.—Mackie, W., 4.
——, Peel Red.—Gill, E. L., 1.
——, Superior, Lake.—Grant, U. A., 1.
——, Washington (U.S.A.).—Shedd, S., 1.
Sandwich Is. (Pacific). *See* Hawaii Is.
Santa Croce, Lake (Venetian Alps). — Longhi, P., 1.
—— Cruz Beds, Patagonia.—Scott, W. B., 1.
Santa Cruzian.—Ameghino, F., 6.
—— Eulalia Mines (Mex.).—Lakes, A., 8.
—— Lucia (Catalonia).—Œhlert, D. P., 1.
—— Maria de Meyá (Catalonia).—Zeiller, R., 2.
—— Maria del Rio (Mexico).—Manzano, J. P., 1.
—— Maria volcano (Guatemala).—Bergeat, A., 3; Brauns, B., 1; Sapper, K., 1.
Santander (Spain).—Cartailhac, E., 1.
Saône-et-Loire (France).—Chantre, E., 1; Delafond, E., 1.
Sapindus.—Knowlton, F. H., 1.
Sapphires, Queensland.—Dunstan, B., 1.
Sara Planina (Servia).—Petkov, M. K., 1; Petkov, V. K., 1.
Saratov Gov. (Russia).—Kalitzki, K., 1; Sinzov, I., 1.
Sardinia.—Dainelli, G., 3; Dannenberg, A., 1,; Lovisato, D., 1–3; Pampaloni, L., 2; Rimatori, C., 1 & 2; Tornquist, A., 4.
Sarlat (Dordogne).—Douvillé, H., 7.
Sarmatian, Austria. — Fuchs, T., 3; Steinmann, G., 3; Hungary. — Lœrenthey, E., 1; Rumania. — Simionescŭ, J., 1–3.
Sauranodon.—Gilmore, C. W., 1.
Savernake (Wilts).—Bird, C., 1 & 3.
Savona-Turin Railway (Liguria & Piedmont).—Sacco, F., 2.
Savoy (France).—Belloc, E., 1; Frech, F., 1; Girardin, P., 1; Haug, É., 4; Kilian, W., 1 & 6; Lugeon, M., 1 & 5; Mougin, P., 1; Sarasin, C., 1; Savin, L., 1; Zaccagna, D., 1.
Saxicava.—Dollfus, G. F., 6; Smith, J., 1.
Saxony.—Beck, R., 1; Dalmer, K., 2; Gæbert, C., 1.; Meissner, —, 1; Nessing, R., 1.; Petrascheck, W., 1; Wagner, P., 1.
Saybusch (Galicia).—Rzehak, A., 1.
Scales, reptilian.—Vaillant, L., 1.
Scandinavia.—Kœveslighethi, R. von, 1; Sernander, R., 2; *see also* Norway & Sweden.
Scania (Sweden).—Hennig, A., 1; Holst, N. O., 1; Kjellén, R., 3.
Scapanorhynchus.—Leriche, M., 1.
Scaphites.—Etheridge, R., Fil., 2; Hilber, V., 1; Wisniovski, T., 1.
Scapolite.—Pettard, W. F., 1.
Scarborough (Yorks).—Richardson, H., 1.
Scenery, Ceylon. — Coomáraswámy, A. K., 5; Cleveland.—Hawell, J., 1.
Scheelite.—Florence, W., 1; Pettard, W. F., 1.
Schemakha (Caucasus).—Andersson, F., 1.
Schiefergebirge (Thuringia).—Zimmermann, E, 2.
Schiosia-beds, Goritz, &c.—Hœrnes, R., 2.

Schira, Lake (Yenisei Gov.).—Tolmashev, I. P. 2.
Schismopora.—Maplestone, C. M., 1.
Schistoceras.—Smith, J. P., 1.
Schists, Aranyo Valley.—Pálfy, M. von, 1.
——, Ariège.—Caralp, J., 1.
——, Calais, Pas de, Carboniferous with.—Deville, Ste.-C., 1.
——, Colorado nodule-bearing.—Read, T. T., 1.
——, crystalline.—Hobbs, W. H., 5.
——, granite-diffusion into.—Greenly, E., 1.
——, Grisons.—Schmidt, C., 1.
——, Himalayas.—McMahon, C. A., 1 & 3.
——, metamorphism of.—Hunt, A. R., 7.
——, Mysore.—Jayaram, B., 1; Sambasiva Iyer, V. S., 1 & 2; Smeeth, W. F., 1; Wetherell, E. W., 1.
——, Ross-shire.—Clough, C. T., 2.
——, Rumania.—Nicolau, T., 1.
——, Vermont plicated.—Dale, T. N., 1.
Schizaster.—Gauthier, V., 1; Martelli, A., 1; Loriol, P. de, 2.
Schizodus.—Yakovlev, N., 1 & 4.
Schizoneura.—Etheridge, R., Fil., 4.
Schizophoria.—Tchernyshev, T., 1.
Schläfer tunnel, Wiesbaden.—Reinach, — von, 1.
Schlaggenwald (Bohemia).—Focke, F., 1.
Schleswig-Holstein (Germany).—Petersen, J., 1; Reinke, J., 1; Stolley, E., 1; Zeise, O., 1.
Schlotheimia.—Bistram, A. von, 1.
Schmalenseeia.—Moberg, J. C., 1.
Schnaitheim (Würt.).—Fraas, E., 2.
Schneeberg (Tyrol).—Weinschenk, E., 8.
Schönite. *See* Picromerite.
Schuchertites.—Smith, J. P., 1.
Schwagerina.—Gortani, M., 3.
Schwarzwald (Baden).—Keidel, H., 1; Schalch, F., 1; Steinmann, G., 2.
Schwarz-See (Valais).—Tornquist, A., 2.
Scobinella.—Casey, T. L., 1.
Scotland.—Anon., 18; Goodchild, J. G., 7 & 8; Johnston, T. N., 1; Lake, P., 1; Heddle, M. F., 1; Murray, Sir J., 1; Thomson, A. G. M., 1; *see also* Great Britain.
Scratches on thin rock-sections.—Jevons, H. S., 1.
Scurcola (Abruzzi).—Cassetti, M., 1.
Scutari, Lake (Albania).—Vinassa de Regny, P., 2.
Scylacosaurus.—Broom, R., 1.
Sea-bottom, Gulf of Manaar.—Lomas, J., 6.
——, influence on Flemish water-level.—Andrimont, R. d', 1.
——-saltness, age of the earth &.—Mackie, W., 5.
——, Sudan ancient.—Lapparent, A. de, 7.
——-water, density of.—Arçtowski, H., 4; Thoulet, J., 1.
Seals, Tertiary Italian.—Ugolini, R., 2.
Sebenico (Dalmatia).—Kerner, F. von, 6.
Secka (Siberia).—Ilovaïski, D., 1.
Sedbury Cliff (Gloucester).—Richardson, L., 2; Vaughan, A., 1.
SEDGWICK Museum, Cambridge.—Reed, F. R. C., 4; *see also* WOODWARDIAN.
Sedimentary deposits, manganese-dioxide &.—Mackie, W., 3.
—— ——, original form of.—Blake, J. F., 2.
—— ——, Patagonia.—Ameghino, F., 6.
—— ——, Rhodesia.—Molyneux, A. J. C., 1.
Sedimentation.—Hunt, A. R., 3; Joly, J., 1.
Seebpore (Bengal).—Grover, F., 1.
Seeds, Permo-Carboniferous.—Smedley, H. E. H., 1.
Seine R. (France).—Grossouvre, A. de, 2.
Seine-et-Oise (France).—Grossouvre, A. de, 1.
Seine-Infre. (France).—Fortin, R., 1.
Seismographs.—Credner, H., 1; Farr, C. C., 1; Hecker, O., 1; Lippmann, G., 1; Rudzki, M. P., 1; Tanakadate, A., 1.
Seismological Congress, 1903.—Montessus de Ballore, F. de, 4.
—— Observatory, Vesuvius.—Anon., 24.
—— stations, Gt. Britain & abroad.—Milne, J., 5.
Seismology.—Milne, J., 1; Wiechert, E., 1; *see also* Earthquakes.
Selbornian, Dorset.—Lang, W. D., 1.
Seligmannite.—Solly, R. H., 1.
SELWYN, A. R. C. *See Obit.*, Ami, H. M., 7 & 9; and Woodward, H., 4.
Sémha I. (Gulf of Aden).—Kossmat, F. 1.
Seminula.—Beede, J. W., 2.
Semionotus.—Eaton, G. H., 1.
Semmering Mt. (Lr. Austria).—Termier, P., 5.
Semna Cataract (Egypt).—Ball, J., 1.
Senaite.—Hussak, E., 2.
Sengwe (Rhodesia).—Molyneux, A. J. C., 1.
Senonian, Denmark.—Ravn, J. P. J., 1.
Septarian clay, Alsace-Lorraine.—Andreæ, A., 1.
Sequoia.—Knowlton, F. H., 1; Penhallow, D. P., 1; Zeiller, R., 3.
Serendibite.—Prior, G. T., 5.
Séreth Valley (Rumania).—Sevastos, R., 3.
Seringapatam (Mysore).—Wetherell, E. W., 1.
Serpentine, Greece.—Hilber, V., 2.
——, Maryland.—Clark, W. B., 4.
——, Washington (U.S.A.).—Shedd, S. 1; pseudo-, Washington.—Clarke, F. W., 1.
Serre Massif (Jura).—Bourgeat, —, 1.
Servia.—Bajetz, M. J., 1; Djlagoi, M. T., 1; Eletz, V. M., 1; Pavlov, P. S., 1 & 2; Petkov, M. K., 1; Petkov, V. K., 1; Peucker, K., 1; Vinassa de Regny, P., 2.

Sesami (Rhodesia).—Molyneux, A. J. C., 1.
Sette Comuni (Venetia).—Campana, D. del, 1.
Seward Peninsula (Alaska).—Collier, A. J., 1.
Sewerby (Yorks).—Lamplugh, G. W., 3.
Shales, Michigan.—Russell, I. C., 2.
——, tests for gold and silver in Kansas.—Lindgren, W., 2.
Shamrock, Mt. (Queensl.).—Ball, L. C., 1.
Shantung (China).—Crick, G. C., 1; Monke, H., 1.
Sharkham Point (Devon).—Hunt, A. R., 8.
Sharks, subfossil.—Eastman, C. R., 2.
Shawnee Formation, Kansas.—Beede, J. W., 3.
Shearing, secondary.—Clough, C. T., 2.
Shenley Hill (Beds).—Lamplugh, G. W., 7.
Shide (I. of Wight).—Milne, J., 1, 3, & 5.
Shimoga (Mysore).—Sambasiva Iyer, V. S., 2.
Shingle, Ault.—Bardou, —, 1.
——, Devon.—Hunt, A. R., 1.
Shoalhaven River (N.S.W.).—Thiele, E. O., 1.
Shore-changes, Wirral Peninsula.—Pickstone, W., 1.
—— concretions, Dutch Guiana.—Du Bois, G. C., 1.
—— deposits, Ille-et-Vilaine.—Lechartier, G., 1.
——-lines, French Tertiary.—Depéret, C., 2; *see also* Raised beaches &c.
Shotley (Suffolk).—Whitaker, W., 1.
Shrinkage, junction-bed disturbances &.—Lamplugh, G. W., 4.
Shropshire.—Cobbold, E. S., 1; Moore, H. C., 1.
Shumardia.—Reed, F. R. C., 5.
Shumardites.—Smith, J. P., 1.
Siberia (Asia).—Bordeaux, A., 1; Gerasemov, A. P., 1; Hawes, C. H., 1; Herz, O., 1; Ijitzki, N., 1 & 2; Ilovaïski, D., 1; Jaczewski, L., 1; Kaschen, N., 1; Krotov, P., 1; Launay, L. de, 3; Ludwig, F., 1; Meister, A., 1 & 2; Obruchev, V., 1; Peetz, H. von, 1; Tolmashev, I. P., 1 & 2; *see also* Gold, Coal, &c.
Sicily, I. of.—Lotz, H., 2; Pampaloni, L., 1; Seguenza, L., 1–3.
Siegen District (Westphalia & Nassau).—Drevermann, F., 1.
Siegen Schists.—Drevermann, F., 1.
Siegersdorf (Silesia).—Guerich, G., 1.
Siena (Tuscany).—Clerici, E., 2; Fucini, A., 3; Pantanelli, D., 1; Verri, A., 3.
Sierra Nevada, &c. *See* Nevada, &c.
Sigillaria.—Zalesski, M., 1.
Sikhim (Himalayas).—Freshfield, D. W., 1.
Silberberg (Bavaria).—Weinschenk, E., 8.
Silcrete.—Bonney, T. G., 5.
Silesia.—Berg, G., 1; Dathe, E., 1; Felix, J., 1; Guerich, G., 1 & 2; Illner, —, 1; Michael, R., 1; Scupin, H., 1; Uhlig, V., 1; Wisniovski, T., 1.
Silicates, action of ammonium-chloride on.—Clarke, F. W., 2.
Siliceous stratified rocks, origin of.—Meunier, S., 1.
Silicic acid, mountain-stream water with.—Headden, W. P., 1.
Silicified fossils, Algeria.—Fourtau, R., 2; Lot.—Douvillé, H., 8; trees, Sardinia.—Pampaloni, L., 2.
Siliceous rocks, chemistry of.—Morozevich, I., 1.
Sillian (Tyrol).—Geyer, G., 1.
Silurian, Belgium.—Malaise, C., 1 & 2.
——, Bohemia.—Zelizko, J. V., 1.
——, Britanny.—Barrois, C., 5; Kerforne, F., 1.
——, Calais (Pas-de-).—Barrois, C., 1.
—— Carboniferous contact, Liévin.—Desailly, —, 1.
——, Gotland, I. of.—Wiman, C., 1.
——, Herefordshire.—Callaway, C., 4.
——, Hesse.—Denckmann, A., 1.
——, Indiana.—Kindle, E. M., 1.
——, Ireland (N.E.).—Clark, R., 1.
——, Maryland.—Schuchert, C., 6.
——, New Jersey.—Weller, S., 2.
——, New York.—Prosser, C. S., 1; Schuchert, C., 3; Whitfield, R. P., 1.
——, Norrbotten.—Holmquist, P. J., 2.
——, Ohio.—Prosser, C. S., 2.
——, Saxony.—Dalmer, K., 2.
——, Shropshire.—Moore, H. C., 1.
——, Tennessee, &c.—Fœrste, A. F., 2 & 3.
——, Vermont.—Perkins, G. H., 1.
——, Victoria (Austral.).—Chapman, F., 1.
Silver, Canada.—Ingall, E. D., 2.
——, Chile.—Labastie, F., 1.
——, Colorado.—Lakes, A., 4 & 6; Ransome, F. L., 1.
——, Mexico.—Aguilera, J. G., 1; Blake, W. P., 2; Halse, E., 2; Lakes, A., 7. 1; Ordoñez, E., 3.
——, Mongolia.—Lyman, B. S., 2.
——, Montana.—Weed, W. H., 7.
——, New South Wales.—Beaumont, E. K., 1; Pittman, E. F., 1; Warren, J., 1.
——, Queensland.—Cameron, W. E., 2.
——, Sardinia.—Lovisato, D., 1.
——, Silesia.—Guerich, G., 2.
——, Tasmania.—Walker, G. A., 1 & 3.
——, Turkestan.—Levat, E. D., 1.
——, United States production.—Day, D. T., 1; Robarts, G. E., 1; *see also* Colorado, &c.
——, Washington.—Spurr, J. E., 1.
Silver Cliff (Colo.).—Welles, A. M., 1.
Silverton (Colo.).—Lakes, A., 4.
Simon-la-Veneuse (Vendée).—Chartron C., 1.

Simonyite.—Jæger, F. M., 1; *see also* Blödite.
Simplon Tunnel (Pennine Alps).—Giménez, J. V., 1; Schardt, H., 2 & 4; Spezia, G., 1.
Sinalosa (Mex.).—Weed, W. H., 2.
Sinjsko Polje (Dalmatia).—Kerner, F., 1.
Siphonalia.—Cossmann, M., 2.
Sirenia, Tertiary.—Delheid, É., 1.
Sjangeli (Norrbotten).—Holmquist, P. J., 1.
Skalička (Moravia).—Remeš, M., 1.
Skara (Gotland).—Munthe, H. H., 1.
'Skarn,' Prince of Wales I. (Alaska).—Thomæ, W. F. A., 1.
Skipton (Yorks.).—Smith, W. G., 1.
Skulls, mammalian.—Osborn, H. F., 1.
Skye, I. of (Scotland).—Harker, A., 1.
Slates, dolerite intrusive in.—Moore, C. C., 1.
——, Ireland.—Elsden, J. V., 8.
——, Witwatersrand.—Sawyer, A. R., 4.
Slattberg (Dalecarlia).—Lœfstrand, G., 1.
Slaty rocks, Beni-Toufout massif.—Termier, P., 4.
Slaughterbridge Beds, Cornwall.—Parkinson, J., 1.
Slavonia (Austria-Hungary).—Pavlov, P. S., 1.
Sligo, Co. (Ireland).—Cole, G. A. J., 6 & 7; Præger, R. L., 1.
Smilodectes.—Wortman, J. L., 1.
Smyrna (Asia Minor).—Yung, —, 1.
Snake-River Plains (Idaho).—Russell, I. C., 3 & 4.
Snow, Sweden.—Jansson, M., 1.
Snowdon (N. Wales).—Jehu, T. J., 1.
——, lakes, colour of water.—Dakyns, J. R., 1.
Soapstone, Mysore.—Primrose, A., 1; Sambasiva-Iyer, V. S., 2.
——, United States.—Pratt, J. H., 4.
Soda, carbonate of.—Van't Hoff, J. H., 3.
——, Mysore.—Sambasiva-Iyer, V. S., 2.
Sodbury (Gloucester).—Strahan, A., 1.
Sohland-a.-d.-Spree (Saxony).—Beck, R., 1.
Soils, analysis of.—Gans, R., 1.
——, Bohemia.—Hanamann, J., 1.
——, Cheshire.—Edwards, W., 2.
——, Dominica (W.I.).—Morris, Sir D., 1.
——, Dublin Co.—Lamplugh, G. W., 6.
——, Egypt.—Lucas, A., 1.
——, electrical resistance of.—Angelis d'Ossat, G. de, 1.
——, forestry &.—Bradfer, R., 1.
——, freezing of.—Bunge, —, 1.
——, frost &.—Roberts, M., 1.
——, humus &.—Hardy, M., 1.
——, Hungary.—Horusitzky, H., 1 & 2; Treitz, P., 1–3; Timko, E., 1.
Soils, Ille-et-Vilaine.—Lechartier, G., 1.
——, Maryland.—Clark, W. B., 3 & 4.
——, mechanical analysis of.—Schlœsing, T., Sen., 1; Vinassa de Regny, P., 3.
——, Nebraska.—Barbour, E. H., 1.
——, nitrogen &c. in.—Miller, N. H. J., 1.
——, Siberian frozen.—Tolmashev, I. P., 1.
——, Umbria.—Bortolotti, C., 1.
Sokotra I. (Gulf of Aden).—Blanford, W. T., 2; Kossmat, F., 1.
Solariidæ.—Seguenza, L., 3.
Solda Valley (Lombardy).—Bistram, A. von, 1 & 2.
Sölden (Tyrol).—Hess, H., 2.
Solen & *Solenocurtus.*—Dollfus, G. F., 6.
Solenomorpha.—Hind, W., 1.
Solenopora.—Maplestone, C. M., 1.
Solenopsis.—Cockerell, T. D. A., 1; Hind, W., 1; see also *Solenomorpha.*
Sologne (Orléanais).—Dollfus, G., 1; Grossouvre, A. de, 4.
Somaliland (Africa).—Arsandaux, H., 1.
Somerset.—Reid, C., 2; Small, E. W., 1; Vaughan, A., 2.
Somerville (Mass.).—Palache, C., 1.
Somme R. (France).—Bardou, —, 1.
Sonninia.—Burckhardt, C., 1.
Sonnwendgebirge (Tyrol).—Ampferer, O., 1.
Sonora (Mex.).—Weed, W. H., 2.
Sopra, Forni di (Carinthia).—Angelis d'Ossat, G. de, 5.
Sösdala (Scania).—Kjellén, R., 3.
Soufrière, La (Guadeloupe).—Lacroix, A., 5.
—— (St. Lucia).—Sapper, K., 5.
—— (St. Vincent).—Anderson, T., 1–5; Howe, E., 1; Klein, C., 1; Lacroix, A., 6, 8, & 9; *see also* St. Vincent, &c.
Southport (Lancs.).—Lomas, J., 2.
SOWERBY's types.—Healey, M., 1.
Spain.—Caralp, J., 2 & 3; Maestre, A., 1; Sauvage, H. E., 1 & 2; Woodward, A. S., 4; Zeiller, R., 2; *see also* Catalonia, &c.
Spalato (Dalmatia).—Kerner, F., 2–4.
Spalax.—Nehring, A.
SPALLANZANI, L. *See* Capellini, G., 2.
'Spalte.' *See* Valleys, rift-.
Spanish Peak (Cal.).—Lawson, A. C., 2.
Sparnacian, Belgium.—Van Ertborn, O., 2.
Sparth (Lancs.).—Baldwin, W., 2.
Spathic iron-ore, Styria.—Taffanel, J., 1.
Specific gravity. *See* Gravity.
Sperrylite.—Goldschmidt, V., 2; Nicol, W., 1.
Spezia (Liguria).—Capellini, G., 2; Clerici, E., 1; Pellati, N., 1.
Sphærocystites.—Schuchert, C., 5.
Sphæroloculina.—Schick, T., 1.
Sphærulites.—Dacqué, E., 1; Hilber, V., 1.

Sphenia.—Dollfus, G. F., 6.
Sphenodiscus.—Solger, F., 1.
Sphenophyllum.—Nathorst, A. G., 1.
Sphenopteris.—Seward, A. C., 2; Zeiller, R., 2.
Sphenotus.—Drevermann, F., 2; Maurer, F., 1.
Sphenozamites.—Compter, G., 1.
Spherulitic structure, St. Minver coast.—Fox, H., 2.
Spielgarten (Baden).—Keidel, H., 1.
Spirangium.—Sauvage, H. E., 2.
Spirifer.—Œhlert, D. P., 1; Tchernyshev, T., 1; Walther, K., 1; Weller, S., 2.
Spiriferina.—Bittner, A., 1; Tchernyshev, T., 1.
Spirigera.—Bittner, A., 1.
Spiroloculina & *Spiroplecta.*—Liebus, A., 2.
Spitsbergen (Arctic).—Baun, A., 1; Kayser, E., 1; Yakovlev, N., 2.
Spizza (Dalmatia).—Bukowski, G. von, 1.
Spodumene.—Kunz, G. F., 4; Pettard, W. F., 1; Schaller, W. T., 1.
Spondylus.—Dacqué, E., 1; Shattuck, G. B., 1.
Sponge-gravel, Faringdon.—Lamplugh, G. W., 1.
Sponges, Cretacous.—Ungern-Sternberg, E. von, 1.
——, geological zones &.—Goodchild, J. G., 4.
——, Jurassic.—Bistram, A. von, 1.
——, Silurian. — Perkins, G. H., 1; Weller, S., 2.
Spores, Carboniferous plant-.—Sellards, E. H., 2.
Stachyotaxus.—Mœller, H., 1.
Stafford Limestone, N.Y.—Talbot, M., 1.
Staffordshire.—Anon., 28; Barrow, G., 1; Cadman, J., 1; Elsden, J. V., 8; Hind, W., 6 & 7; Stobbs, J. T., 1 & 3; Turner, E. P., 1.
Stansfield (Suffolk). — Whitaker, W., 1.
Stanton-Harcourt (Queensl.).—Ball, L. C., 1.
Start Point (Devon).—Hunt, A. R., 1.
Stassfurt (Germany). — Lœwe, L., 1; Ochsenius, C., 3; Van't Hoff, J. H., 1-5.
Stegaster.—Airaghi, C., 2.
Stegoceras.—Lambe, L. M., 2; Nopčsa, F. von, Jun., 5; Osborn, H. F., 4.
Stegosauria.—Lucas, A., 6.
Stegotherium.—Scott, W. B., 1.
Steinheim (Würt.).—Fraas, E., 3.
Steneofiber.—Depéret, C., 3.
Steneosaurus.—Thévenin, A., 1.
Stenogyra.—Felix, J., 2.
Stenometopon.—Boulenger, G. A., 1.
Stenonia.—Gauthier, V., 1.
Stenorrachis.—Nathorst, A. G., 2.
Stenosmilia.—Felix, J., 2.
Stenotatus.—Scott, W. B., 1.
Stephanocare.—Monke, H., 1.
Stereocephalus. — Lambe, L. M., 2; Osborn, H. F., 4.
Stereogenys.—Andrews, C. W., 1.
Stethacanthus.—Eastman, C. R., 1.
STEVENSON, J. *See Obit.*, Lapworth, C., 1.
Stibiodomeykite.—Kœnig, G. A., 1.
Stigmaria.—Poole, H. S., 1.
Stilbite.—Focke, F., 1.
Still Rivers (Conn.).—Hobbs, W. H., 3.
Stolzite.—Florence, W., 1.
Stomechinus.—Gauthier, V., 2.
Stone-implements, nephrite.—Wolff, F. von, 2; *see also* Implements.
—— -fall, Commission, Prussia. *See* Coal-fall.
——, fireclay with waterworn. — Sutcliffe, R., 1.
—— industries, Paris Exhibition, 1900. —Schafarzik, F., 7.
Stonyhurst (Lancs).—Hind, W., 1.
STOPES, H. *See Obit.*, Anon., 12.
Storeton Hill (Cheshire).—Beasley, H. C., 2.
Stow-on-the-Wold (Gloucester).—Richardson, L., 4.
Stramberg (Moravia).—Remeš, M., 1; Steinmann, G., 4 & 5.
Strasburg (Alsace).—Gerland, G., 1 & 3; Montessus de Ballore, F. de, 4; Weigand, B., 1.
Strata, movements of, Dorset.—Darwin, H., 1.
Strathy Point (Sutherland).—Greenly, E., 1.
Stratified siliceous rocks, origin of.—Meunier, S., 1.
Stratigraphical classification.—Prosser, C. S., 2; Safford, J. M., 1.
Streblodus.—Eastman, C. R., 1.
Streblopteria. — Drevermann, F., 2; Yakovlev, N., 4.
Strephochetus.—Perkins, G. H., 1.
Stretto (Dalmatia). — Schubert, R. J., 1-3.
Striastæonina.—Chartron, C., 1.
Striatopora.—Penecke, K. A., 1.
Striegau (Styria).—Sachs, A., 1.
Stripåsen (Svealand).—Tenow, O., 1.
Strobilus.—Fœrster, B., 5.
Strombus.—Cossmann, M., 1.
Stromeyerite.—Pettard, W. F., 1.
Strontianite.—Pratt, J. H., 12; Popov, S. P., 1.
Strontium-ores, U.S.A.—Day, D. T., 1.
Stropheodonta. — Chapman, F., 1; Weller, S., 2.
Strophomena.—Nickles, J. M., 1.
Struthiosaurus.—Nopčsa, F. von, Jun., 2.
Sturia.—Airaghi, C., 1.
Stylocœnia.—Osasco, E., 1.
Stylolites.—Reis, O. M., 1.
Stylophora.—Osasco, E., 1.
Stylophyllopsis.—Bistram, A. von, 1.
Styria (Austria).—Dreger, J., 1; Hœrnes, R., 1 & 7; Laska, W., 1; Redlich, K. A., 1; Taffanel, J., 1.

Succinea.—Wuest, E., 3 & 4.
Suczava (Moldavia). — Butureanŭ, V. C., 1.
Sudan (N. Africa).—Cohen, E., 2; Haug, É., 3; Lacoin, —, 1; Lapparent, A. de, 2, 6, 7 & 8; Linck, G., 6.
Sudbury (Ont.).—Dickson, C. W., 1.
Suez, Isthmus of.—Fourteau, R., 4.
Suffolk.—Bassett, H., Jun., 1; Jukes-Browne, A. J., 3; Monckton, H. W., 5; Whitaker, W., 1.
Sulphate of iron.—Scharizer, R., 1.
Sulphur, Chile.—Salcedo, J. V., 1.
——, crystallization of. — Baumhauer, H., 1.
——, Paris, native.—Meunier, S., 3.
——, Russia.—Shkljarevski, A., 1; Vernadski, V. S., 1.
——, Siena.—Pantanelli, D., 1.
—— springs, Dominica.—Sapper, K., 8; Sta. Lucia.—Sapper, K., 5.
Sulz unterm Wald (Alsace). — Herrmann, A., 1.
Sulza (Thuringia).—Henkel, L., 2.
Sumatra (D. E. I.).—Neeb, E. A., 1; Truscott, J., 1.
Summit Co. (Colo.).—Lakes, A., 1.
Sundgau (Alsace). — Fœrster, B., 1–3; Klæhn, G., 1.
Sunspots, volcanic eruptions &.—Jensen, H. I., 1.
Superior, Lake (N. Am.).—Birkinbine, J., 1; Grant, U. A., 1; Vattier, C., 1.
Surinam (Dutch Guiana).—Du Bois, G. C., 1.
Surrey. — Coomáraswámy, A. K., 3; Monckton, H. W., 3 & 5.
Surveys. *See* Geological Surveys.
Sussex.—Dawson, C., 1; Dixon, H. B., 1; Monckton, H. W., 5; Reid, C., &c., 5 & 6; Thorpe, T. E., 1; Woodward, H. B., 11.
Sutherland. — Goodchild, J. G., 11; Greenly, E., 1.
Sutherland Division (Cape Colony).—Rogers, A. W., 5.
Sutlej Valley (Himalayas).—McMahon, C. A., 1 & 3.
Svappavaara (Norrbotten).—Launay, L. de, 4.
Svealand (Sweden).—Sernander, R., 3; Tenow, O., 1.
Sveltia.—Cossmann, M., 2.
Swabia.—Schick, T., 1; Schmierer, T., 1.
Sweden.—Andersson, G., 1; Kjellén, R., 1–3; Lagerheim, G., 1 & 2; Munthe, H., 2; Sernander, R., 1–3; maps of, 1600–1850.—Lœnborg, S., 1; *see also* Scandinavia, &c.
Swedish Antarctic Expedition. — Andersson, G., 3.
Swellendam (Cape Colony).—Rogers, A. W., 2.
Switzerland. — Burcart, E., 1; Kæch, M., 1; Lugeon, M., 1 & 3–5; Muehlberg, 1–3; Preller, C. S. du R., 1; Rollier, L., 1 & 3; Schardt, H., 6; Schmierer, T., 1.
Sydenham (Victoria, Austral.).—Hart, T. S., 1.
Sydney (N.S.W.).—Mingaye, J. C. H., 3.
Syenite, Canada. — Adams, F. D., 3; Miller, W. G., 1.
——, Charnwood.—Watts, W. W., 1: Woodward, H. B., 6.
——, Crete.—Cayeux, L., 4.
——, Tasmania. — Twelvetrees, W. H., 12.
——, Tyrol.—Ippen, J. A., 6; Romberg, J., 1.
Sylt (Frisian Is.). — Martin, J., 1; Petersen, J., 1.
Sylvana-limestone. See *Helix.*
Syncyclonema.—Etheridge, R., Fil., 2: Hind, W., 4.
Syria (Asia Minor). —Blanckenhorn, M., 2 & 4; Hilber, V., 1.
Szeged (Hungary).—Treitz, P., 2.

Taberg (Norrbotten).—Launay, L. de, 4.
Table Mt. (Cape Colony).—Anon., 36.
Taconic Range (N. Y., Vermont, &c.).—Hobbs, W. H., 6.
Tacora (Chile).—Salcedo, J. V., 1.
Tæniopteris.—Zeiller, R., 1.
Tagliacozzo (Abruzzi).—Cassetti, M., 1.
Tainton Downs (Oxon).—Walford, E. A., 1.
Talabor Valley (Hungary).—Posewitz, T., 1.
Talc, United States.—Pratt, J. H., 4.
Tamanite.—Popov, S. P., 3.
Taminick (Victoria).—Kitson, A. E., 2.
Tanganyika, Lake (Equatorial Africa). —Blanford, W. T., 1; Mennell, F. P., 3; Moore, J. E. S., 1.
Tapirus.—Ameghino, F., 2.
Tarascon-sur-Ariège (Ariège). — Carez, L., 7.
Tarija Valley (Buenos Aires). — Ameghino, F., 2; Nordenskjœld, E., 1 & 2.
Tarkwa (Gold Coast).—Sawyer, A. R., 6.
Tarn-et-Garonne (France).—Martel, E. A., 5.
Tarnócz (Hungary).—Koch, A., 4.
Tasmania.—Coghlan, T. A., 1; Gregory, J. W., 1 & 4; Hall, T. S., 1; Pettard, W. F., 1; Stephens, T., 1; Stewart, H., 1; Twelvetrees, W. H., 1–12; Waller, G. A., 1–4.
Tatarka R. (Siberia).—Meister, A., 1.
TATE, R. *See Obit.*, Hutton, F. W., 1.
Tatella.—Etheridge, R., Fil., 2.
Tatra Mts. *See* Carpathians.
Tauern, Hohe (Tyrol).—Termier, P., 6.
Tauern Tunnel (Tyrol).—Berwerth, F., 3.
Taunus Mts. (Germany). — Buecking, H., 5; Delkeskamp, R., 1; Reinach, — von, 1.
Taurida (S. Russia).—Sokolov, N., 1.
Taurus Mts. (Anatolia).—Penecke, K. A., 1; Schaffer, F. X., 1–3.
Tay Basin (Scotland). — Murray, Sir J., 1.
Taxites.—Mœller, H., 1.

Taxodium.—Knowlton, F. H., 1.
Tchad, Lake (Sudan).—Lacoin, —, 1.
Tea-Green Marls, Keuper age of.—Richardson, L., 2.
Teesdale (Durham, &c.). — Clough, C. T., 1 ; I'Anson, J. C., 1.
Teeth, Jurassic reptilian.—Gilmore, C. W., 1.
Tegulifera.—Tchernyshev, T., 1.
Tehuelche system, Patagonia. — Ameghino, F., 6.
Teign Valley (Devon).—Lowe, H. J., 1 ; Somervail, A., 1.
Teinistion.—Monke, H., 1.
Telek Alsó (Hungary).—Halaváts, J., 1.
Tellina.—Casey, T. L., 1.
Tellina Valley (Lombardy).—Brugnatelli, L., 1 ; Hammer, W., 1 ; Hecker, O., 2.
Telluride (Colo.).—Lay, H. C., 1.
Tellurides, W. Australia. — Spencer, L. J., 1.
Telmatosaurus.—Nopčsa, F. von, Jun., 4.
Temnocheilus.—Franz, V., 1.
Tennantite.—Pettard, W. F., 1.
Tennessee (U.S.A.).—Fœrste, A. F., 2 & 3 ; Kemp, J. F., 3 ; McCallie, S. W., 1 ; Safford, J. M., 1 & 2.
Teratorhynchus.—Reed, F. R. C., 15.
Tercis (Landes).—Arnaud, H., 1.
Terebratula.—Antula, J., 1 ; Bittner, A., 1 ; Gortani, M., 3 ; Lamplugh, G. W., 1.
—— -limestone, Sokotra. — Kossmat, F., 1.
Terebratulina.—Kossmat, F., 1.
Terebratuloidea.—Tchernyshev, T., 1.
Terlingua (Tex.) & Terlinguaite. — Moses, A. J., 1.
Terneuzen (Flanders).—Brouwer, M. de, 1.
Terni (Umbria).—Lotti, B., 1.
Terraces, Klamath Region.—Hershey, O. H., 2 ; Séreth Valley. — Sevastos, R., 3.
——, river-.—Hershey, O. H., 5 ; Mills, F. S., 2.
Terrapene.—Hay, O. P., 1.
Tertiary, Algeria.—Ritter, E., 1.
——, Alpes-Maritimes.—Riaz, A. de, 2.
——, Alsace - Lorraine. — Andreæ, A., 1–5 ; Fœrster, B., 1, 2 ; Herrmann, A., 1.
——, Argentina.—Ameghino, F., 2.
——, Asia Minor.—Schaffer, F. X., 1–3 ; Toula, F., 1.
——, Austria (Lr.).—Abel, O., 3 ; Fuchs, T., 1–5.
——, Baluchistan.—Nœtling, F., 1.
——, Bavaria.—Blanckenhorn, M., 1.
——, Belgium.—Forir, H., 1 ; Rutot, A., 4 ; Seward, A. C., 5 ; Van Ertborn, O., 1 & 6.
——, Berkshire. — Blake, J. H., 1 ; Monckton, H. W., 5.
——, Britanny.—Kerforne, F., 3 ; Lebesconte, P., 1.
——, California.—Lucas, F. A., 7.
Tertiary, Cameroons.—Oppenheim, P., 1.
——, classification of.—Dollfus, G. F., 3.
——, Crete.—Cayeux, L., 3.
——, Croatia.—Gorjanovič-Kramberger, K., 2.
——, Dakota.—Lucas, F. A., 3.
——, Egypt. — Blanckenhorn, M., 2 ; Pachundaki, D. E., 1 ; Stromer, E. von, 2.
——, Florida.—Dall, W. H., 3.
——, Galicia.—Rzehak, A., 1 ; Szajnocha, W., 1.
——, Hants Basin.—Ormerod, H. A., 1.
——, Hungary.—Lœrenthey, E., 1 ; Telegd, L. R. von, 1.
——, Italy. — Fornasini, C., 1 ; Nelli, B., 1 ; Stefano, G. de, 4 ; Viola, C., 1 ; *see also* Piedmont, &c.
——, Karikal.—Cossmann, M., 2.
—— land-mollusca, Oppeln. — Michael, R., 2.
——, Lombardy.—Salmojraghi, F., 1.
——, Mainz.—Schuster, W., 1 ; Steuer, A., 2.
——, Maryland.—Clark, W. B., 4.
——, Meiningen.—Wuest, E., 5.
——, Mississippi, &c.—Dall, W. H., 1–3 ; Hilgard, E. W., 1 ; Smith, E. A., 2.
——, Montana.—Rowe, J. P., 1.
——, Moravia.—Fuchs, T., 4.
——, New England Plateau (N.S.W.).—Andrews, E. C., 1.
——, Norfolk, &c.—Elsden, J. V., 5 ; Monckton, H. W., 5 ; Rutot, A., 4.
——, Oregon.—Washburne, C., 1.
——, Paris Basin.—Dollfus, G. F., 5 ; Leriche, M., 3 ; Ramond, G., 2.
——, Patagonia. — Ameghino, F., 6 ; Tournouër, A., 1.
——, Persia.—Douvillé, H., 2.
——, Piedmont.—Patrini, P., 1.
——, Podolia.—Venukov, P. I., 1.
——, Provence.—Depéret, C., 2.
——, Rumania. — Angelis d'Ossat, G. de, 7 ; Sevastos, R., 1 ; Simionescŭ, J., 1.
——, Sardinia.—Dainelli, G., 3.
——, Servia.—Pavlov, P. S., 1 & 2.
——, Sicily.—Seguenza, L., 1–3.
——, Slavonia.—Pavlov, P. S., 1.
——, Styria.—Hœrnes, R., 1.
——, Sudan.—Lapparent, A. de, 2 & 8.
——, Suffolk.—Bassett, H., Jun., 1.
——, Surrey.—Monckton, H. W., 3 & 5 ; Rutot, A., 4.
——, Switzerland.—Gerber, E., 1 ; Rollier, L., 3 ; Stehlin, H. G., 1.
——, Tunisia.—Pervinquière, L., 1.
——, Tuscany.—Ugolini, R., 1 & 3.
——, Tyrol.—Dreger, J., 2.
——, Umbria.—Verri, A., 1.
——, Vaucluse.—Châtelet, C., 1.
——, Venetia.—Gortani, M., 1–3 ; Oppenheim, P., 6 ; Patrini, P., 1.
——, Victoria (Austral.).—Dennant, J., 3 ; Pritchard, G. B., 1.
——, Vienna Basin.—Fuchs, T., 6.
——. *See also* Miocene, &c.

Testudo.—Andrews, C. W., 5; Fœrster, B., 5 & 7; Hay, O. P., 1.
Tetragonites.—Yabe, H., 1.
Tetrahedrite. — Pettard, W. F., 1; Schweitzer, J., 1.
Tetraploporella.—Steinmann, G., 5.
Teutoburg Forest (Germany). — Stille, H., 2.
Tewkesbury (Gloucester).—Richardson, L., 5.
Texas (U.S.A.).—Case, E. C., 1 & 2; Eldridge, G. H., 1; Hill, B. F., 1; Kilian, W., 3; Lucas, A. F., 1; Matthew, W. D., 1; Shattuck, G. B., 1; Stanton, T. W., 1; Sternberg, C. H., 1 & 2; Stœk, H. H., 1; Taff, J. A., 1; Whitfield, R. P., 1.
Textularia.—Fornasini, C., 1.
Thacosiphonia-nobilis zone. — Schrammen, A., 1.
Thalassemys.—Fraas, E., 2.
Thalassochelys.—Stefano, G. de, 2.
Thames R. (England). — Fitzmaurice, M., 1; Haige, A. H., 1; Thames Valley.—Kennard, A. S., 2; Newton, E. T., 2; Pocock, T. I., 1; Warren, S. H., 1.
Thamnastræa.—Felix, J., 2.
Thamnophyllum.—Penecke, K. A., 1.
Thebes (Egypt).—Oppenheim, P., 3.
Thecocyrtina & *Thecospira.* — Bittner, A., 1.
Thecosmilia.—Osasco, E., 1.
Thedford (Ont.).—Shimer, H. W., 1.
Theralite.—Bauer, F., 1.
Theriodontia, Triassic.—Broom, R., 1.
Thermal conductivity, rock.—Peirce, B. O., 1.
—— waters, Carlsbad. — Prinz, W., 1 & 3; earth's crust &.—Hoffmann, J. F., 1.
Theux (Liége).—Fourmarier, P., 1 & 3.
Thim, J. Van S. *See Obit.*, Firket, A., 1.
Thinnfeldia.—Etheridge, R., Fil., 1.
Thomsonite.—Schalch, F., 1.
Thorium-minerals.—Barker, G. F., 1.
Thornwick Bay (Yorks). — Richardson, H., 1.
Thracia.—Dollfus, G. F., 6.
Thuites.—Knowlton, F. H., 1.
Thunder Mts. (Idaho). — L'Hame, W. E., 1.
Thuringia (Germany).—Henkel, L., 2 & 3; Kolesch, K., 1; Luedecke, O., 1; Ochsenius, C., 1; Schuetze, E., 1; Wuest, E., 3, 4, & 5; Zimmermann, E., 1 & 2.
Thylax.—Renault, B., 4.
Tian-Shan Mts. (Central Asia).—Friederichsen, M., 2.
Tibet (Asia).—Futterer, K., 2.
Ticino (Switzerland).—Bistram, A. von, 1 & 2.
Tiflis Gov. (Russia).—Mushketov, J., 1.,
Timan Mts. (Russia). — Tchernyshev T., 1.
Tin, Australia (W.).—Krusch, P., 1.
Tin, Britanny.—Kerforne, F., 5.
——, Celebes.—Koperberg, M., 1.
——, Cornwall.—Flett, J. S., 1.
——, Malay Peninsula.—Penrose, R. A. F., Jun., 1.
——, Queensland.—Cameron, W. E., 1.
——, Sumatra.—Neeb, E. A., 1.
——, tourmaline &. — MacAlister, D. A., 1.
Tinguaite, Tyrol.—Ippen, J. A., 1.
Tintagel Head (Cornwall).— Parkinson, J., 1.
Tiree (Hebrides).—Coomáraswámy, A. K., 4.
Tirerrill (Sligo).—Cole, G. A. J., 6 & 7.
Tirlian (Ufa Gov.).—Kovalev, P., 1.
Tissotia.—Dacqué, E., 1.
Tisza R. (Hungary).—Treitz, P., 2.
Titaniferous iron-sand, Caernarvon. — Cope, T. H., 1.
—— minerals, rocks with.—Thuerach, H., 1.
—— pyroxene.—Winchell, A. N., 4.
Titanite.—Bœris, G., 1; Zambonini, F., 3.
Titanium-ores, United States.—Day, D. T., 1; Snelling, W. O., 1.
Titano, Mte. (Lombardy).—Salmojraghi, F., 1.
Titanomys.—Depéret, C., 3.
Titanotheres, extinction of.—Andrews, C. W., 2.
——, Oligocene.—Osborn, H. F., 2.
Tithonian, Moravia. — Remeš, M., 1; Steinmann, G., 4 & 5.
Tmetoceras.—Burckhardt, C., 1.
Toadstone-bed, Derbyshire.—Moore, S., 1.
Toarcian, Worcestershire.—Buckman, S. S., 1 & 2; Hull, F., 1.
Todea.—Seward, A. C., 6.
Tokyo (Japan).—Omori, F., 3 & 4.
Tollesbury (Essex).—Holmes, T. V., 3.
Tomsk (Siberia). — Kaschen, N., 1; Peetz, H. von, 1; Tanfilïev, G. I., 1.
Tonalites, Lombardy.—Salomon, W., 1,
Tonga Group (Pacific).—Skeats, E. W., 1.
Tongrian, Belgium.—Forir, H., 1.
——, Britanny.—Bézier, T., 1.
Topangalva (Hungary).—Pálfy, M. von 1.
Tor Bay (Devon).—Hunt, A. R., 8.
Torbernite.—Buchholz, Y., 1.
Torda (Transylvania).—Gesell, A., 1.
Toretocnemus.—Merriam, J. C., 1.
Torishima (Japan).—Kutschera, M., 1.
Tornea Lake (Norrbotten).—Holmquist, P. J., 2; Tœrnebohm, A. E., 1.
Tornoceras.—Smith, J. P., 1.
Toroczko (Transylvania). — Telegd, L. R. von, 1.
Torreglia (Venetia).—Squinabol, S., 2.
Torridonian, I. of Rum.—Harker, A., 2.
Tortoises, Tertiary.—Andrews, C. W., 5; Lydekker, R., 1; Sinclair, W. J., 1; *see also* Chelonia.
Touat (Algeria).—Flamand, G. B. M., 1.

Toulon (Provence).—Répelin, J., 1.
Toulouse (Languedoc). — Michel-Lévy, A., 1.
Touraine (France).—Lambert, J., 2.
Tourmaline, Dartmoor.—Worth, R. H., 1; Scotland.—Goodchild, J. G., 7; Tasmania.—Waller, G. A., 4.
——, tin &.—MacAlister, D. A., 1.
Tournai (Hainault).—Delépine, G., 2; Leriche, M., 2.
Towan Head (Cornwall).—Johnson, J. P., 1; Kennard, A. S., 1.
Toxaster.—Loriol, P. de, 2; Pellat, E., 2.
Trachodon.—Osborn, H. F., 4.
Trachyceras.—Airaghi, C., 1.
Trachydolerite, Tasmania.—Twelvetrees, W. H., 1.
Trachypora.—Weller, S., 2.
Trachyte, New South Wales.—Andrews, E. C., 2; Card, G. W., 3.
Tracks, worm-, &c.—Ami, H. M., 3; Bonney, T. G., 2 & 6; Walther, J., 1.
Transkei District (Cape Colony). — Rogers, A. W., 3 & 6.
Transported gravel, Baltic coast. — Geinitz, E., 2.
Transvaal (S. Africa).—Black, W. G., 1; Hammond, J. H., 1; Hatch, F. H., 1 & 2; Sawyer, A. R., 1, 3, 4, & 5; Weldon, H., 1 & 2.
Transylvania (Hungary).—Gesell, A., 1; Nopčsa, F. von., Jun., 1; Pálfy, M. von, 1; Telegd, L. R. von, 1; Vernadski, V. S., 3.
Trau (Dalmatia).—Kerner, F. von, 6.
Tredorn Beds, Cornwall.—Parkinson, J., 1.
Tree in a Colorado fissure-vein, 1000 ft. deep.—Lakes, A., 9.
Treisa (Hesse).—Chelius, C., 1.
Tremadoc (Merioneth).—Fearnsides, W. G., 1.
Trenton (N.J.).—Hrdlička, A., 1.
—— Limestone, Ottawa. — Whiteaves, J. F., 1.
Triænoceras.—Drevermann, F., 3.
Trias, Alsace-Lorraine.—Fliche, P., 4; Meyer, G., 1; Schaller, J., 1; Schumacher, E., 4; Steuer, A., 1.
——, Ariège.—Carez, L., 4.
——, Bavaria.—Henkel, L., 3.
——, Biarritz. — Carez, L., 6; Seunes, J., 1.
——, Bosnia.—Bittner, A., 1.
——, California.—Merriam, J. C., 1.
——, Carnic Alps.—Tommasi, A., 1.
——, China.—Schellwien, E., 1.
——, Crete.—Cayeux, L., 6.
——, Dakota.—Richardson, G. B., 1.
——, Dalmatia.—Bittner, A., 1; Kittl, E., 1.
——, Devon.—Bonney, T. G., 7; Somervail, A., 2 & 3.
——, Elgin.—Boulenger, G. A., 1.
——, Franche Comté.—Piroutet, M., 2.
——, Hungary.—Papp, C., 1.
——, Leicester.—Fox-Strangways, C., 1; Watts, W. W., 1.
Trias, Naumburg.—Henkel, L., 1.
——, New England.—Hobbs, W. H., 6.
——, occurrence of.—Frech, F., 1.
——, Oregon.—Washburne, C., 1.
——, Sardinia.—Lovisato, D., 3.
——, Servia.—Eletz, V. M., 1.
——, Thuringia. — Henkel, L., 2 & 3; Kolesch, K., 1; Ochsenius, C., 1.
——, Tunisia.—Pervinquière, L., 1.
——, Tuscany.—Angelis d'Ossat, G. de, 3; Fucini, A., 3.
——, United States.—Hobbs, W. H., 3.
——, Venetia.—Bittner, A., 1; Oppenheim, P., 6.
——. *See also* Keuper, Rhætic, &c.
Triassic fossils, Nova-Scotian boulder-clay with.—Haycock, E., 1.
—— landscape, buried, Charnwood. — Watts, W. W., 1; Woodward, H. B., 6.
—— pebble-beds, S. Devon & Midlands. —Hunt, A. R., 5; Shrubsole, O. A., 1.
Trienbach (Alsace-Lorraine). — Zeiller, R., 1.
Trient (Tyrol). — Dal Piaz, G., 1 & 2; Oppenheim, P., 6; Tietze, E., 4.
Triest (Austria).—Mazelle, E., 1.
Trigonia. — Burckhardt, C., 1; Etheridge, R., Fil., 2; Kitchin, F. L., 1; Lucas, F. A., 3; Newton, R. B., 1; Paulcke, W., 1; Shattuck, G. B., 1.
Trigonostoma.—Cossmann, M., 2.
Trilobites, Cambrian. — Etheridge, R., Fil., 1; Monke, H., 1; Weller, S., 2; Woodward, H., 7.
——, Carboniferous. — Illés, V., 1; Parkinson, H., 1; Reed, F. R. C., 2.
——, Devonian. — Drevermann, F., 2; Maurer, F., 1; Walther, K., 1; Weller, S., 2; Woodward, H., 1.
——, eyes of.—Spencer, W. K., 1.
——, Silurian.—Hall, T. S., 2; Moberg, J. C., 1; Reed, F. R. C., 1 & 5; Weller, S., 2.
Trinidad (Colo.).—Hill, R. T., 1.
Trinidad (W.I.).—Anon., 20; Gordon, J. W., 1; Guppy, R. J. L., 1.
Trinucleus.—Reed, F. R. C., 5.
Triomphalia.—Dollfus, G. F., 6.
Trionyx.—Lœrenthey, E., 2; Rutot, A., 5.
Triplite.—Nordenskjœld, I., 1.
Trocharion & *Trochictis.*—Major, C. I. F., 1.
Trochidæ.—Seguenza, L., 3.
Trochocyathus.—Felix, J., 2; Oppenheim, P., 6.
Trochoseris.—Osasco, E., 1.
Trochosmilia.—Felix, J., 2; Shattuck, G. B., 1.
Trochus.—Dainelli, G., 3; Shattuck, G. B., 1; Wollemann, A., 1.
Troitsk (Urals).—Duparc, L., 4.
Tropea (Calabria).—Lojacono, M., 1.
Tshelekenj I. (Caspian Sea). — Shkljarevski, A., 1.
Tubulostium.—Weller, S., 1.
Tuff, Italy.—Fantappié, L., 1.

Tuff, St. Vincent.—Howe, E., 1.
——, Würtemberg.—Endriss, K., 1.
Tuli (Rhodesia).—Molyneux, A. J. C., 1.
Tulln (Lr. Austria).—Abel, O., 3.
Tullstorp (Scania).—Holst, N. O., 1.
Tumilat, Wadi (Egypt).—Lucas, A., 1.
Tumkar (Mysore).—Primrose, A., 1; Wetherell, E. W., 3.
Tungsten.—Hobbs, W. H., 1; Pratt, J. H., 3.
Tunisia (N. Africa).—Meunier, S., 16; Pervinquière, L., 1; Stefano, G. de, 2; Termier, P., 2.
Tunnel, Baker Street-Waterloo Railway.—Haige, A. H., 1; LigurianApennine.—Rovereto, G., 1; Meudon.—Ramond, G., 1; Simplon.—Giménez, J. V., 1; Schardt, H., 2; Tauern.—Berwerth, F., 3; Taunus.—Reinach, — von, 1.
Turgite.—Samoïlov, J., 4.
Turin-Savona Railway (Piedmont & Liguria).—Sacco, F, 2.
Turkestan (Asia).—Levat, E. D., 1 & 2.
Turkey (European).—Gounot, A., 1; Hilber, V., 2; Hœrnes, R., 3; Peucker, K., 1; Vinassa de Regny, P., 2.
Turnerite.—Pohl, O., 1.
Turonian, Egypt.—Fourtau, R., 3.
Turritella.—Cossmann, M., 1; Shattuck, G. B., 1.
Turtle Mt. (Alberta Terr.).—Brewer, W. M., 2; Lakes, A., 11.
Turtles, Tertiary.—Hay, O. P., 3.
Tuscany.—Angelis d'Ossat, G. de, 3; Barsanti, L., 1; Clerici, E., 1 & 2; Dainelli, G., 1; Elsden, J. V., 9; Fucini, A., 1 & 3; Lotti, B., 2 & 3; Pantanelli, D., 1; Regàlia, E., 1; Ristori, G., 1; Sacco, F., 3; Trabucco, G., 1; Ugolini, R., 1 & 3; Verri, A., 3, 4, & 6; Zambonini, F., 4.
Tweed Valley.—Goodchild, J. G., 2.
Tympanotomus.—Hœrnes, R., 1.
Types, D'Archiac.—Thévenin, A., 2.
——, Geol. Soc. Mus.—Blake, J. F., 1.
——, refigured.—Œhlert, D. P., 2.
——, Sowerby's.—Healey, M., 1.
Typha.—Engelhardt, H., 1.
Typhis.—Cossmann, M., 2.
Tyroglyphites.—Pampaloni, L., 1.
Tyrol (Austria).—Ampferer, O., 1, 2, & 3; Blaas, J., 1; Dal Piaz, G., 1; Dreger, J., 1; Fabian, K., 1; Frech, F., 1; Geyer, G., 1 & 2; Gordon, M. M. O., 1; Greim, G., 1; Guenther, S., 1; Hammer, W., 2; Hess, H., 2; Hezner, L., 1; Ippen, J. A., 1–7; Kossmat, F., 2; Oppenheim, P., 6; Pohl, O., 1; Romberg, J., 2; Tietze, E., 4; Termier, P., 6; Weinschenk, E., 2 & 8; Wolff, F. von, 1.
Tyson, J. W. *See Obit.*, Glenn, W., 1.

Ufa Gov. (Russia).—Kovalev, P., 1.
Uganda (Equatorial Africa).—Prior, G. T., 2.
Uinta Co. (Wy.).—Knight, W. C., 1.
Uitenhage Series.—Seward, A. C., 2.
Ulm a. D. (Würt.).—Gerhardt, K., 1.
Ulmus.—Engelhardt, H., 1; Knowlton, F. H., 1.
Ulophyllia.—Osasco, E., 1.
Ulrichiana.—Jones, T. R., 1.
Ulten Valley (Tyrol).—Hammer, W., 2.
Umbria (Italy). — Bortolotti, C., 2; Lotti, B., 1; Segré, C, 1; Verri, A., 1.
Uncinulites.—Pampaloni, L., 1.
Underground temperature, Michigan.—Lane, A. C., 2.
Undina.—Sauvage, H. E., 2.
Unio.—Stanton, T. W., 1.
—— -tracks.—Walther, J., 1.
Union Formation, Nova Scotia.—Ami, H. M., 2.
United States.—Blake, W. P., 4; Hayes, C. W., 1; Jones, T. R., 1; Mabery, C. F., 1; Walcott, C. D., 1–2, 5, & 6.
——, mineral resources.—Day, D. T., 1.
——. *See also* Devonian, Iron, &c.
Upsala (Svealand).—Sjœgren, H., 1.
Ural Mts. (Russia).—Bertrand, M., 1; Duparc, L., 1, 2, & 4–7; Ilovaiski, D., 1; Mamontov, V. N., 1; Penck, A., 1; Surgunov, N., 1; Tchernyshev, T., 9.
Uranite.—Buchholz, Y., 1.
Uranium.—Pratt, J. H., 3.
Urenchelys.—Woodward, A. S., 2.
Uri (Switzerland). — Bœckh, J., 3 Lugeon, M., 1.
Ursus.—Flores, E., 1 & 3; Smallwood, W. M., 1.
Utah (U.S.A.). — Davis, W. M., 3; Eldridge, G. H., 1; Emmons, S. F., 2; Huntington, E., 1; Stobbs, L. S., 1.

Vaccinium.—Engelhardt, H., 1.
Vachères (Basses-Alpes).—Jacob, C., 1.
Vaginulina.—Herrmann, A., 1.
Valais (Switzerland).—Solly, R. H., 1 & 2; Tornquist, A., 2.
Valanginian (Provence).—Pellat, E., 1.
Vallée Poussin, C. de la. *See* Firket, A., 2; Van den Broeck, E., 6.
—— -marl, Thuringia.—Wuest, E., 1.
Valley, Teign R.—Somervail, A.
Valleys, Austria (Upper).—Haag, F., 1.
——, hanging. — Branner, J. C., 5; Crosby, W. O., 2.
——, Klamath.—Hershey, O. H., 4.
——, Norway.—Monckton, H. W., 2 & 4.
——, permanence of river-.—Hill, E., 1.
——, rift-.—Graber, H. V., 1.
——, Tuscany.—Lotti, B., 2.
——, Tyrol.—Hess, H., 2.
——. *See also* River, &c.
Valvata.—Fœrster, B., 5; Pavlov, P. S., 2.
Vanadinite.—Bowman, H. L., 1; Lovisato, D., 2.
Vanadium, occurrence of.—Mingaye, J. C. H., 1; Pratt, J. H., 3.
Vanikoropsis.—Etheridge, R., Fil., 2.
Vanthoffite.—Van't Hoff, J. H., 4.

Vanua Levu (Fiji).—Bonney, T. G., 10.
Varanus.—Nópcsa, F. von, Jun., 3.
Variolitic pillow-lava, Newfoundland.—Daly, R. A., 1.
Värmland (Sweden).—Blomberg, A., 2.
Vaskö (Hungary).—Weinschenk, E., 3.
Vasluĭ (Rumania).—Sevastos, R., 1.
Vaucluse (Provence).—Putzeys, E., 2; Savornin, J., 2; Van den Broeck, E., 13.
Vaugirard (Paris).—Meunier, S., 6 & 8; Stehlin, H. G., 1 & 2.
Vecchio, Mte. (Sardinia).—Millosevich, F., 2.
Vegas, Las (New Mex.).—Springer, A., 1.
Vegetation, changes of level &. — Sernander, R., 2.
Veglia I. (Adriatic).—Waagen, L., 1.
Veins, Cornwall.—Flett, J. S., 1.
——, country-rock &.—Weed, W. H., 1.
——, earthquakes & mineral. — Montessus de Ballore, F. de, 2.
——, fissure-.—Lakes, A., 9.
——, formation of.—Joly, J., 3; Kemp, J. F., 2.
——, I. of Man. — Bonney, T. G., 4; Lomas, J., 1.
——, ore-enrichment.—Pošepny, F., 1; Weed, W. H., 4.
——, Skiddaw Series of.—Postlethwaite, J., 1.
——. *See also* Ore-deposits, &c.
Vendée (France). — Chartron, C., 1; Michel-Lévy, A., 1.
Venediger, Gross (Tyrol).—Weinschenk, E., 2.
Venericardia.—Casey, T. L., 1.
Veneridæ.—Dall, W. H., 1.
Venetia (Italy).—Airaghi, C., 2; Bittner, A., 1; Campana, D. del, 1; Checchia-Rispoli, G., 1; Gortani, M., 1–3; Keyserling, H. von, 1; Ochsenius, C., 2; Oppenheim, P., 5 & 6; Patrini, P., 1; Taramelli, T., 2; *see also* Alps, Carnic.
Venice (Italy).—Ochsenius, C., 2.
Ventriculites. — Ungern - Sternberg, E. von, 1.
Venus.—Dollfus, G. F., 4; Franchis, F. de, 1.
Vergada I. (Dalmatia).—Schubert, R. J., 1.
Vergys (Savoy).—Sarasin, C., 1.
Vermiceras.—Fucini, A., 1.
Vermont (U.S.A.).—Dale, T. N., 1; Hobbs, W. H., 6; Perkins, G. H., 1.
Verneuilina.—Liebus, A., 2.
Vernon Mt. (Ky.).—Merrill, G. P., 4.
Verona (Italy).—Oppenheim, P., 6; Taramelli, T., 3.
Verrucano (Moldavia).—Simionescŭ, J. T., 1.
Vestinautilus.—Crick, G. C., 2.
Vesuvius.—Anon., 24; Kewitsch, G., 1; Matteucci, R. V., 1; Medanich, G., 1.
Viburnum.—Penhallow, D. P., 1.
Vicenza (Italy).—Campana, D. del, 1.
Vicksburg (Miss.).—Casey, T. L., 1.
Victoria (Austral.).—Chapman, F., 1 & 2; Coghlan, T. A., 1; Dennant, J., 2 & 3; Grant, F. E., 1; Gregory, J. W., 2 & 3; Jenkins, H. C., 1; Kitson, A. E., 1–3; Maplestone, C. M., 1; Pritchard, G. B., 1 & 2; Woodward, A. S., 11.
Victoria Quarry, Buxton.—Dawkins, W. B., 1.
Vidalia.—Sauvage, H. E., 2.
Vielsalm (Belgium).—Delvaux, E., 1.
Vienna Basin (Austria).—Abel, O., 2; Fuchs, T., 6; Toula, F., 2.
Vieuxvy (Ille-et-Vilaine).—Bigot, A., 2 & 4.
Villedieu (Indre).—Canu, F., 2.
Ville-Sauvage (Seine-et-Oise). — Grossouvre, A. de, 1.
Virgatites.—Burckhardt, C., 1.
Virgilina (Va.).—Watson, T. L., 1.
Virginia (U.S.A.).—Campbell, H. D., 1; Watson, T. L., 1; Woodworth, J. B., 1 & 2.
Virginia, W. (U.S.A.).—Campbell, M. R., 2; Eldridge, G. H., 1; Griffith, W., 1; Heurteau, C. E., 1; Simmersbach, B., 1; White, D., 3; White, I. C., 1.
Viscous fusion, mineral.—Joly, J., 5.
Visé (Liége).—Lespineux, G., 1.
Viterbo (Latium).—Meli, R., 1.
Vivara crater (Campania).—Lorenzo, G. de, 5.
Vivipara.—Pavlov, P. S., 2; Stanton, T. W., 2.
Vogelgebirge (Hesse - Darmstadt). — Buecking, H., 4.
Vogtland (Altenburg).—Zimmermann, E., 2.
Voklinshofen (Alsace).—Dœderlein, L., 1.
Vola.—Schubert, R. J., 3.
Volcanic activity, origin of.—Meunier, S., 11; earth's crust &. — Fleischer, A., 1.
—— ashes, Mont Pelé.—Colonna, E., 1; Montana.—Rowe, J. P., 2; Sta. Maria (Guatemala).—Brauns, R., 1; Bergeat, A., 1 & 3; Sapper, K., 1; Schottler, W., 2.
—— craters, Dominica.—Sapper, K., 8.
—— dust, atmospheric absorption &.—Backhouse, T. W., 1; Barbados.—Coppock, J. B., 1; Powell, H., 2; Iceland.—Meunier, S., 12; Italy.—Flores, E., 1; Martinique.—Gillot, H., 1; New Zealand.—Marshall, P., 1; *see also* Dust, Red rain, &c.
—— eruptions, earthquakes &.—Anon., 22; Milne, J., 6; cause of.—Rossel, A., 1; Crete.—Cayeux, L., 2; phenomena of.—Anderson, T., 1–5; Stuebel, A., 1; sunspots &.—Jensen, H. I., 1; Torishima.—Kutschera, M., 1.
—— ——, West Indies.—Anderson, T., 1–5; Curtis, G. C., 1; Gentil, L., 1; Giraud, J., 1; Hœrnes, R., 6; Hovey, E. O., 1; Issel, A., 3; Kewitsch, G.,

1; Klein, C., 1; Lacroix, A., 1–4, 6, 7–9; Lagrange, E., 2; Lobley, J. L., 1; Meunier, S., 14; Powell, H., 1; Sapper, K., 4, 11, & 12; Spencer, J. W., 2 & 4; Supan, A., 1; Verrill, A. E., 3; *see also* Martinique, St. Vincent, &c.
Volcanic formations, age of West Indian. —Spencer, J. W., 2.
—— gases.—Gautier, A., 1.
—— islands, Mediterranean.—Meunier, S., 5; Azores.—Howarth, O. H., 1; Pacific.—Bonney, T. G., 10.
—— phenomena, underground observations &.—Laisant, A., 1.
—— plugs.—Branner, J. C., 4; Buecking, H., 4; Hovey, E. O., 4; Kitson, A. E., 3; Knebel, W., von, 2; Strachey, R., 1.
—— rocks, Argyll.—Kynaston, H. 1; Tintagel Head.—Parkinson, J., 1; *see also* Igneous rocks.
—— secondary phenomena, West Indies. —Curtis, G. C., 3.
Volcano, Quenast.—Simoëns, G., 5.
Volcanoes, Aleutian Is.—Merriam, C. H., 1.
——, America (N.).—Russell, I. C., 1.
——, Andes.—White, R. B., 1 & 2.
——, Argentina & Chile.—Hauthal, R., 1.
——, Auvergne.—Montlosier, — de, 1.
——, boiler-scale miniature.—Stromeyer, C. E., 1.
——, Deccan.—Strachey, R., 1.
——, distribution of.—Lallemand, C., 1; Miron, F., 1.
——, Europe, &c.—Anderson, T., 3.
——, Griqualand (E.).—Schwarz, E. H. L., 2.
——, Guatemala.—Bergeat, A., 1–3; Brauns, R., 1; Schottler, W., 2.
——, Iceland.—Anderson, T., 3.
——, Italy.—Fantappié, L., 1; Lorenzo, G. de, 1–6; Moderni, P., 2; Verri, A., 5.
——, Mexico.—Felix, J., 5; Ordóñez, E., 1.
——, Oregon.—Diller, J. S., 3.
——, origin of.—Lorenzo, G. de, 4; Stuebel, A., 2; Van den Broeck, E., 7; Van Ertborn, O., 5.
——, Salvador.—Sapper, K., 2.
——, Suabian embryo.—Branco, W., 1 & 2; Knebel, W. von, 2.
Volhynia (Russia).—Tutkovski, I., 1.
Volture Mte. (Basilicata).—Lorenzo, G. de, 3.
Vomper R. (Tyrol).—Ampferer, O., 3.
Vosges Mts.—Benecke, E. W., 2 & 5; Delépine, G., 1; Meunier, S., 9; Schumacher, E., 2; Van Werveke, L., 3, 4, 7, 10, 11, 13 & 19.
Vredefort (Transvaal).—Sawyer, A. R., 5.
VUILLEMIN, E. *See Obit.*, Delecroix, —, 1.
Vulcanology, Vesuvius.—Anon., 24.
Vulsinian volcanoes, Rome.—Moderni, P., 2.
Waagenoceras.—Smith, J. P., 1.
Wabash Valley (Ill. & Ind.).—Fuller, M. L., 4.
Wabaunsee Formation, Kansas.—Beede, J. W., 3.
Waihi (N.Z.).—Morgan, P. C., 1.
Walchen (U. Styria).—Redlich, K. A., 1.
Waldenburg (Silesia).—Dathe, E., 1.
Waldheimia.—Antula, J., 1; Bittner, A., 1.
Waldron (Ind.).—Newsom, J. F., 1.
Wales. *See* Monmouthshire, &c.
WALKER, E. E. *See Obit.*, Woodward, H., 11.
Wallensen (Hanover).—Menzel, H., 1.
Walpello Co. (Iowa).—Leonard, A. G., 1.
Walthamstow (Essex).—Holmes, T. V., 2.
Wang-Ping (China).—Drake, N. F., 1.
Waratah (Tasmania).—Twelvetrees, W. H., 3.
WARD, J. *See Obit.*, Dickson, J.
Wardour, Vale of (Wilts).—Andrews, W. R., 1; Jukes-Browne, A. J., 2.
Warsaw (Poland).—Levinski, J., 1.
Warwickshire.—Shrubsole, O. A., 1.
Wasatch Mts. (Utah).—Emmons, S. F., 2.
Washington (U.S.A.).—Clarke, F. W., 1; Landes, H., 1; Shedd, S., 1; Smith, G. O., 1 & 2; Spurr, J. E., 1.
Water, Aargau.—Muehlberg, F., 1.
——, Aisne.—Babinet, —, 1.
——, Alabama.—Hall, B. M., 1.
——, Brussels.—Putzeys, E., 2.
——, California.—Manson, M., 2.
——, Cape Town.—Anon., 36.
——, Caucasus.—Yermolov, A., 1.
——, Cherbourg.—Bigot, A., 6.
——, Colorado.—Fellows, A. L., 1.
——, coloration of.—Dakyns, J. R., 1; Golliez, H., 1; Imbeaux, —, 1.
——, Cuba.—Eigenmann, C. H., 1.
——, density of sea.—Arçtowski, H., 4; Thoulet, J., 1.
——, Doubs.—Van den Broeck, E., 11.
——, Egypt.—Lucas, A., 1.
—— filtration, river-gravels &.—Andrimont, R. d', 2.
——, Flanders.—Andrimont, R. d', 1; Van Ertborn, O., 4 & 11.
——, 'fossil.'—Mackie, W., 4.
——, Hawaiian Is.—Lindgren, W., 1 & 4.
——, Herts.—Fitzmaurice, M., 1; Saunders, J., 1.
——, Idaho.—Russell, I. C., 4.
——, Jurassic limestone.—Woodward, H. B., 12.
——, Kansas.—Johnson, W. D., 1.
——, Lecce.—Taramelli, T., 4.
—— -level, Alost.—Van Ertborn, O., 8; Belgian coalfields.—Kersten, J., 1.
——, Liguria & Elba.—Cortese, G., 1.
——, Manchester.—Pickstone, W., 2.
——, Maryland.—Clark, W. B., 3.
——, Mexico.—Richards, E. H., 1.

Water, Mondovi.—Sacco, F., 1.
——, Neundorf.—Stille, H., 1.
——, New Jersey.—Kuemmel, H. B., 1.
——, Nord.—Vaillant, V., 1.
——, ore-enrichment by hot.—Weed, W. H., 4.
——, origin in Belgian Carboniferous Limestone.—Moulan, T. C., 2.
——, Paris Basin.—Kemna, A., 2; Maillet, E., 1.
——, quarry rock.—Anon., 32.
——, rainfall & underground.—Hooker, C. P., 1.
——, Rappoltsweiler.—Van Werveke, L., 5.
——, Ruhr coal-basin.—Middelschulte, A., 1.
——, Russia (Central).—Sinzov I., 1.
——, salinity of.—Mackie, W., 4.
—— (salt & fresh), denudation by solution.—Joly, J., 2.
——, sea, with arsenic.—Gautier, A., 2.
——, Servia.—Bajetz, M. J., 1.
——, silicic acid in.—Headden, W. P., 1.
——, Simplon Tunnel.—Schardt, H., 2.
——, Swiss mountain-lake, Burcart, E., 1; Swiss underground.—Lugeon, M., 6.
——, Thames & Lea.—Fitzmaurice, M., 1.
——, Tuscany.—Ristori, G., 1; Trabucco, G., 1.
——, underground circulation of.—Couppey de la Forest, M. le, 2; Dienert, F., 1; Fournier, E., 2 & 3; Marboutin, F., 1 & 2; Martel, A. E., 3 & 5; Meunier, S., 15; Rahir, E., 1; Schardt, H., 3; Slichter, C. S., 1; Trillat, A., 1; Van den Broeck, E., 10–13 & 15; Woodward, H. B., 5.
——, Vaucluse.—Putzeys, E., 2; Van den Broeck, E., 13.
——, Venetia.—Ochsenius, C., 2; Taramelli, T., 3.
——, Wyoming (E.).—Adams, G. I., 1.
——, Yorks.—Dwerryhouse, A. R., 1.
——. *See also* Artesian, Mineral, &c.
Wavellite.—Zambonini, F., 1.
Wealden, Boulonnais.—Rigaux, E., 1.
Weathering of building-stone in London.—Anon., 33.
Weiler Valley (Alsace).—Bruhns, W., 2; Linck, G., 2.
Weinheim (Hesse).—Deninger, K., 1.
Weir (Kan.).—Crane, W. R., 2.
Weissenburg (Alsace).—Linck, G., 2.
Wellington (N.Z.).—Hogben, G., 1.
Wellington College (Berks).—Blundell, G. E., 1.
Wells, Bagnacavallo.—Corti, B., 1.
——, Biggleswade.—Home, H., 1.
——, Punjab.—Simpson, R. R., 1.
Wemmelian, Belgium.—Forir, H., 1.
Wenlock Limestone.—Reed, F. R. C., 1.
Werribee Plains (Victoria, Austral.).—Kitson, A. E., 1.
Weser R. estuary.—Schucht, F., 1.
Weser Hills (Westphalia).—Wiese, T., 1.
West Indies.—Anon., 2 & 17; Issel, A., 3; Lagrange, E., 2; Lobley, J. L., 1; Milne, J., 6; Morris, Sir D., 1; Sapper, K., 9; Spencer, J. W., 1–4; Verrill, A. E., 1–3; *see also* Martinique, &c.
Westmorland.—Burns, D., 1; Postlethwaite, J., 1.
Westonia.—Walcott, C. D., 3.
Westphalia (Germany).—Bruecher, M., 1; Drevermann, F., 1; Habets, A., 1; Kaiser, E., 1; Middelschulte, A., 1; Stille, H., 2 & 3; Wiese, T., 1.
Wetzlar (Germany).—Harbort, E., 2.
Whales, subfossil.—Eastman, C. R., 2.
——, Tertiary.—Abel, O., 1.
Whetstones, United States.—Pratt, J. H., 5.
Whinstone, Teesdale.—I'Anson, J. C., 1.
White Bay (Newfoundland).—Howley, J. P., 1.
WHITE, T. G. *See Obit.*, Kemp, J. F., 1.
White Chalk, Devon.—Rowe, A. W., 2.
Whitehaven (Cumberland).—Arber, E. A. N., 4.
White Horse (Yukon).—Brewer, W. M., 1.
White Range (S. Austral.).—Brown, H. Y. L., 1.
White River (U.S.A.).—Matthew, W. D., 2.
White Sea (Russia).—Fedorov, E., 1.
Whitella.—Weller, S., 2.
Wicklow (Ireland).—Seymour, H. J., 2.
Wieliczka (Galicia).—Schrœter, A., 1.
Wiesbaden (Nassau).—Bellinger, J., 2; Delkeskamp, R., 2; Lotz, H., 2; Reinach, — von, 1.
Wight, I. of.—Colenutt, G. W., 1; Woodward, H., 5.
Willemite.—Panebianco, R., 1.
Williamsonia.—Nathorst, A. G., 2.
Wilsonia.—Weller, S., 2.
WILTSHIRE, T. *See Obit.*, Anon., 13; Wiltshire, E. W., 1; Woodward, H., 2.
Wiltshire.—Andrews, W. R., 1; Cunnington, W., 1; Jukes-Browne, A. J., 2; Reid, C., 1, 3 & 7; Rowe, A. W., 1.
Windward Is. (W.I.).—Spencer, J. W., 1.
Windworn stones.—Johnsen, A., 3 & 4; Koken, E., 3 & 4.
Windy Knoll (Derby).—Dawkins, W. B., 1.
Windgälle (Uri).—Bœckh, H., 3.
Wirral Peninsula (Cheshire).—Pickstone, W., 1.
Wisconsin (U.S.A.).—Fenneman, N. M., 1; Grant, U. A., 1; Slichter, C. S., 1; Upham, W., 3; Weidman, S., 2.
Witchellia.—Burckhardt, C., 1.
Witwatersrand (Transvaal).—Black, W. G., 1; Hatch, F. H., 1 & 2; Sawyer, A. R., 1 & 4.

Wojczy (Galicia).—Szajnocha, W., 1.
Wolchonskoite.—Krotov, P., 1.
Wolframite.—Kerforne, F., 5; Irving, J. D., 1.
Wollastonite, Mexico.—Collins, H. F., 1.
Wood, fossil.—Tuzson, J., 1.
Woodbridge (Suffolk).—Whitaker, W., 1.
Woodford (Essex).—Howe, J. A., 2.
Woodlark I. (New Guinea). — Pinder, C. R., 1.
Woodnorton (Worcester).—Richardson, L., 3.
Woodwardian Museum, Cambridge.—Kurtz, F., 1; Reed, F. R. C., 1, 2, & 4.
Woolhope District (Hereford).—Callaway, C., 4.
Woolverstone (Suffolk).—Whitaker, W., 1.
Worcestershire.—Buckman, S. S., 1; Hull, E., 1; Richardson, L., 3.
Worm-burrows, Rocky Mt. quartzite.—Bonney, T. G., 2 & 6.
—— -tracks.—Walther, J., 1.
Wurm, R. (Belgium). — Andrimont, R. d', 2.
Würtemberg (Germany).—Branco, W., 1 & 2; Endriss, K., 1; Engel, —, 1; Fraas, E., 1; Freudenberg, W., 1; Koch, K. R., 1; Schmidt, A., 2; Schuetze, E., 2.
Wutach R. (Baden).—Steinmann, G., 2.
Wyoming (U.S.A.).—Adams, G. I., 1; Hatcher, J. B., 1; Knight, W. C., 1 & 3; Richardson, G. B., 1; Salisbury, R. D., 1; Stobbs, L. S., 1.
Wyoming buried valley, Pennsylvania.—Lyman, B. S., 1.

Xanten (Rhenish Prussia). — Mueller, G., 1.
Xenodiscus.—Schellwien, E., 1.
Xenotime.—Hussak, E., 2.
Xinantecatl (Mexico).—Ordóñez, E., 1.
Xylophomya.—Whitfield, R. P., 3.

Yakutsk (Siberia).—Rein, J., 1; Tolmashev, I. P., 1; Woodward, A. S., 9.
Yellow Sands, Northumberland & Durham.—Lebour, G. A., 1.
Yenisei R. (Siberia).—Ijitski, N., 1 & 2; Jaczewski, L., 1; Ludwig, F., 1; Meister, A., 1 & 2; Tolmashev, I. P., 1 & 2.
Yesso (Japan).—Yabe, H., 1.
Yeu, I. d' (Vendée).—Michel-Lévy, A., 1.
Yonne (France).—Couppey de la Forest, M. le, 1.
York Peninsula (S. Austral.).—Greenway, T. C., 1.
Yorke's Peninsula (N. Terr., S. Austral.).—Brown, H. Y. L., 4.
Yorkey's Goldfield (Queensl.).—Ball, L. C., 3.
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Zeehan (Tasm.).—Waller, G. A., 1 & 2.
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Zeolites.—Cornu, F., 1; Pelikan, A., 1.
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Ziller Valley (Tyrol).—Termier, P., 5.
Zinc, Arkansas. — Branner, J. C., 2; Hedburg, E., 1.
——, Bavaria & Tyrol. — Weinschenk, E., 8.
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——, Taunus Mts.—Delkeskamp, R., 2.
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——, plants as indices.—Arber, E. A. N., 1.
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Zosterites.—Fliche, P., 1.

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